

PREFATORY NOTE

These transcripts have been produced from the original raw transcripts in the FOMC Secretariat's files. The Secretariat has lightly edited the originals to facilitate the reader's understanding. Where one or more words were missed or garbled in the transcription, the notation "unintelligible" has been inserted. In some instances, words have been added in brackets to complete a speaker's thought or to correct an obvious transcription error or misstatement.

Errors undoubtedly remain. The raw transcripts were not fully edited for accuracy at the time they were produced because they were intended only as an aid to the Secretariat in preparing the records of the Committee's policy actions. The edited transcripts have not been reviewed by present or past members of the Committee.

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Meeting of the Federal Open Market Committee

December 18-19, 1989

A meeting of the Federal Open Market Committee was held in the offices of the Board of Governors of the Federal Reserve System in Washington, D.C., on Monday, December 18, 1989, at 1:00 p.m. and continued on Tuesday, December 19, 1989, at 9:00 a.m.

PRESENT: Mr. Greenspan, Chairman
Mr. Corrigan, Vice Chairman
Mr. Angell
Mr. Guffey
Mr. Johnson
Mr. Keehn
Mr. Kelley
Mr. LaWare
Mr. Melzer
Ms. Seger
Mr. Syron

Messrs. Boehne, Boykin, Hoskins, and Stern,¹ Alternate
Members of the Federal Open Market Committee

Messrs. Black, Forrestal and Parry, Presidents of the
Federal Reserve Banks of Richmond, Atlanta, and
San Francisco, respectively

Mr. Kohn, Secretary and Economist
Mr. Bernard, Assistant Secretary
Mr. Gillum, Deputy Assistant Secretary
Mr. Mattingly, General Counsel
Mr. Patrikis², Deputy General Counsel
Mr. Prell, Economist
Mr. Truman, Economist

Messrs. Balbach, R. Davis, T. Davis, Lindsey,
Promisel, Scheld, Siegman, Simpson, and Slifman,
Associate Economists

Mr. Sternlight, Manager for Domestic Operations,
System Open Market Account
Mr. Cross, Manager for Foreign Operations,
System Open Market Account

1. Entered meeting after action to approve minutes of November 14, 1989 meeting.
2. Attended Tuesday session only.

Messrs. Coyne and Winn,³ Assistants to the Board,
Board of Governors
Mr. Keleher, Assistant to Governor Johnson, Office of
Board Members, Board of Governors
Mr. Ettin,⁴ Deputy Director, Division of Research and
Statistics, Board of Governors
Mr. Stockton,⁵ Associate Director, Division of Research
and Statistics, Board of Governors
Mr. Hooper,³ Assistant Director, Division of International
Finance, Board of Governors,
Messrs. Brayton,³ Gagnon,³ Ms. Rehm,³ Messrs. Small,³ and
Tryon,³ Economists, Divisions of Research and Statistics,
International Finance, Research and Statistics,
Monetary Affairs, and International Finance,
respectively, Board of Governors
Ms. Low, Open Market Secretariat Assistant, Division of
Monetary Affairs, Board of Governors

Messrs. Beebe, Broadus, J. Davis, Lang, Rosenblum, and
Ms. Tschinkel, Senior Vice Presidents, Federal Reserve
Banks of San Francisco, Richmond, Cleveland,
Philadelphia, Dallas, and Atlanta, respectively

Messrs. McNees and Miller, Vice Presidents, Federal Reserve
Banks of Boston and Minneapolis, respectively

Mr. Vangel, Assistant Vice President, Federal Reserve Bank
of New York

3. Attended Monday session only.

4. Attended Tuesday session covering discussion and action to adopt
domestic policy directive.

5. Left meeting before discussion and action to adopt the domestic
policy directive.

Transcript of Federal Open Market Committee Meeting of
December 18-19, 1989

December 18, 1989--Afternoon Session

CHAIRMAN GREENSPAN. President Stern is on his way, but we can get started. First, may I have a motion to approve the minutes?

VICE CHAIRMAN CORRIGAN. So move.

SPEAKER(?). Second.

CHAIRMAN GREENSPAN. Without objection. Mr. Prell, would you like to start us off?

MR. PRELL. Thank you, Mr. Chairman. I just wanted to make a few brief comments before my colleagues make their presentation. As we listened at the last couple of meetings to the remarks of various Committee members regarding their expectations for this session, I must say that we were more than a little concerned. The potential scope of the discussion seemed to encompass not only more than we would have time to prepare or present but also more than we know or than anyone knows. So, our first job was to narrow the focus of our presentation to the issues that were both manageable and relevant to the Committee's policy concerns. We concentrated in particular on the question of the costs, in terms of unemployment and lost output, that can be expected to be incurred with an effort to achieve price stability within a five-year time frame. Surely, our [unintelligible] not only are of importance but also [the degree to] which positive analysis as opposed to personal value numbers can be brought to bear. One that comes to mind immediately is that of inflation measurements [and how] one wishes to quantify this price stability goal. In the list of discussion thoughts we distributed were those other questions to which some theoretical and empirical analysis probably can be applied, although I must admit that research to date has provided few, if any, definitive answers. Be that as it may, what we are presenting today certainly addresses some of the most urgent [concerns] facing the Committee, given present economic conditions and where we stand relative to the ultimate objective of price stability. On that note, let me indicate that we have three speakers: Dave Stockton and Larry Slifman from the Research Division, and Peter Hooper from the Division of International Finance. Dave will begin.

MESSRS. STOCKTON, SLIFMAN, and HOOPER. [Statements--see Appendix.]

CHAIRMAN GREENSPAN. That's an extraordinarily interesting job, gentlemen.

MR. ANGELL. It truly is.

CHAIRMAN GREENSPAN. The floor is now open for questions or comments.

MR. JOHNSON. Just one question. When you compare these sacrifice ratios from the models with the historical experience you use an unemployment rate. I guess that's one way to do it. But it doesn't seem to take into account that there will be changes in

productivity and substitutions of capital for labor. I was just wondering [unintelligible]. It struck me that even though the cost was fairly significant--in real output terms you lost about 2 percentage points of real GNP growth--the change in nominal GNP was dramatic and the decline in the CPI inflation rate was from something like 12 or 13 percent annual rate down to about 4 percent in one year. Now, I know I'm not talking about relative to potential, but GNP was growing at about a zero rate in '81 or so and the change in the growth rate was from about zero to minus 2 or something like that over the '81 and '82 recession. I'm not sure that that's the best example but that one just strikes me as something quite significant. We saw the inflation rate come down from what people thought was a core rate of 10 percent; people were talking about projecting 10 percent out indefinitely. The actual rate was running 12 to 13 percent, I think, at an annual rate. And we had about a 9 percentage point change in the inflation rate in one year with about a 2 percentage point change in the real growth rate. That struck me as a significant adjustment without the kind of dislocations that might be implied here. If you're looking at cumulative effects over the whole cycle on unemployment, I know the unemployment rate got a lot higher. But the real output sacrifice in terms of growth rates wasn't very large at all when you consider the dramatic change in the inflation rate.

MR. BLACK. I think one could also argue that our credibility wasn't as high during that period as it might be in the future.

MR. JOHNSON. Right.

MR. BLACK. Which would have made it even less.

MR. JOHNSON. Right.

MR. STOCKTON. I think the point to remember, though, was not so much that the swing in the GNP growth was zero to minus 2 but the fact that the unemployment rate ran up to 10 percent and then came down quite slowly. In addition, inflation in general in that period probably slowed a bit faster than the models might have expected but then it plateaued and didn't slow much [below that rate] beyond that point.

MR. JOHNSON. I agree, but I'm just saying--

MR. STOCKTON. So, the output losses in some sense should be measured from potential output--how much output do you actually give up relative to what you could have had, had you been operating at the time at potential, in order to bring inflation down. It does raise an issue, which I don't think we were able to address very well, simply because there aren't that many episodes upon which to base it, and that is: Would you get a more rapid bang for your buck out of a very deep downturn in overall economic activity and a very sharp rise in [un]employment than if you went through a long protracted period of smaller [declines in economic activity] but [more persistent] unemployment? The models that we looked at, the [Board] model in particular, don't distinguish between those kinds of events. In fact, there may be some expectational effect--even though we're not going to be able to see it very well with this one episode--where, if the economy sinks and people expect you to keep the pressure on, you would in fact have a larger effect on overall expectations than you would

inching the unemployment rate up to 6 or 6-1/2 percent over 5 or 6 years.

MR. SYRON. I think that's a very relevant point with respect to looking at the '81 period that was being talked about because, while I'm not disagreeing on the point that we had no credibility in that period, that was a case where [we] demonstrated a willingness to really hit the economy over the head with a sledgehammer to get inflation down. And it may be that this kind of shock effect occurring all at once rather than by a gradual approach-- I think it's not clear how much credibility that--

CHAIRMAN GREENSPAN. I think there was a very important event that occurred prior to all of this and that was that long sequence of inflation going up successively; it was ratcheting up. In other words, the lows were always higher than the previous low and the low previous to that; and the highs were higher. And people like Milton Friedman were projecting [it would move] progressively ever on upward. At that particular point in that period, the System had maximum public support and minimum credibility.

MR. JOHNSON. That's what's so striking about it: the fact that people were projecting continued [increases in inflation]. I'm still amazed thinking back on that. I remember how painful it was sitting there going through it. But I'm still struck by what appears to be a fairly small sacrifice when you consider what people thought it would take to unwind inflation like that. The only thing is the baggage we've been left with: all the debt buildup in the '70s that resulted from that and the exposure to the safety net that resulted from cracking it.

MR. GREENSPAN. Yes. Our short-term models are poor but our intermediate-term models are really extraordinarily difficult to deal with. In these different and separate models, to which I think you are referring, are a lot of very interesting results. But they give you really quite different scenarios as to what would happen under various conditions. I think what we're dealing with is a very difficult conceptual problem of how our economy functions, especially in the growing world environment, under these different scenarios. I think what you succeeded in doing was getting some idea of dimension on some of the areas, but the range of error has to be awfully high. And I think all we can do is pick up one or two major notions. Bob.

MR. PARRY. I'd like to ask an opinion about the credibility issue. If one had a Neal resolution, and in addition to that had publicly announced some kind of multiyear path on something such as either nominal GNP or money, do you think that that would have a significant impact on credibility? And, therefore, would that lead you more in the direction of faster adjustment than was incorporated in the model?

MR. PRELL. We were looking to you folks to address that. I am sure you must sit around and talk about it and have views about it.

MR. STOCKTON. My own view is that it would be difficult to expect an immediate adjustment and a response to that. If you look back at inflation expectations survey data, for example, in 1979 there wasn't an immediate reaction to the announcement of a change in

Federal Reserve operating procedures. There was, however, after the effects of the implementation of that policy became clear. It seems likely that it would be difficult to gauge what period of time it would take to establish that credibility or by what channels one would be able to do that. But I guess one wouldn't want to bet on having a very large immediate initial effect from simply signing on to the Neal proposal; but that's [as] opposed to some other kind of commitment that might tie the hands of policymakers, etc.

MR. PARRY. Well, first of all, the strong credibility [model] assumed that it would take 2 years before it was believed and that's a fairly long time. In addition to the Neal amendment, I was thinking more in terms of setting year-to-year targets, which is one question I might ask.

MR. PRELL. You're [layering] on top of an ultimate objective the things that are in the targets and so on?

MR. PARRY. Right, which has to be--

MR. PRELL. Clearly, we haven't always achieved our monetary targets; so whether that in itself would have a great additional effect isn't clear. On the other hand, if [you look] back to the early '80s--a time in which we were perceived, correctly or not, to be on a monetarist sort of approach--maybe that will bring back the memories that what was needed at that time was a very hard-nosed approach.

MR. PARRY. But the targets don't have to be in terms of monetary aggregates. They could--

MR. PRELL. But then you will recognize that the structure of the system, the behavioral relations, are not normal--certainly in that in the short run you might get a variety of mixes of output and price movement given nominal GNP growth. I suspect the more you seek to tie your hands in the way [policy] seems to be directed toward price stability the more it does [unintelligible] to credibility. But as I said, rolling on top of that ultimate objective, [if] that [is perceived] to be strong, it's almost a sufficient condition in itself.

MR. PARRY. Thank you.

CHAIRMAN GREENSPAN. Governor Angell.

MR. ANGELL. Well, I want to echo Chairman Greenspan's compliments to you. Even though you [prefaced] your remarks by saying that it shows how little we know, I still think it has been a very fruitful exercise and certainly fulfills what it was that we were asking for in terms of this kind of a presentation. One interest that I have is in terms of the base case. You were suggesting that there could be a continuation of this impact into 1996 and 1997 that might involve an outright deflation. Consequently, it was nice to look at that earlier tight money phenomenon because it also brought the rate of unemployment down to its natural rate. And what I'm asking is: Since we're already getting something we don't know about, maybe we might as well go ahead and do another five years because we're only doing more of that which we don't know about; and thereby, we would have a base case movement to zero inflation in 1995 and then [we

could] look at the adjustment to the natural rate of unemployment. And that would also give us an opportunity to look at the current account deficit. That's because I presume that taking the base case [up to] 1996 will cause an interest rate adjustment, which I presume would [work] through to both the budget deficit and also the current account deficit because of the interest rate effect. And [we could] see how that might follow through for the next five years. Would that involve too much more?

MR. HOOPER. We'd have to consult with our model experts on that.

SPEAKER(?). Well, it certainly would be hard to do in a day or two. But a few weeks' work [unintelligible] to what you've seen here.

MR. ANGELL. But you could suggest that the adjustments would not necessarily be that we would let deflation occur but that we would make adjustments in the direction that I've indicated. And that would then be pluses for the federal budget deficit and pluses for the current account in the ensuing period after 1995. I also wanted to get your reaction to the oil price shocks. It seems to me that maybe the oil price shocks are not unrelated to monetary policy. That is, if we decided to leave the inflation rate at 4-1/2 percent, we might be more apt to have an oil price shock, or a so-called oil price shock, than we would if we proceeded in a tighter fashion.

MR. HOOPER. Yes, we really would, because some of those underlying factors would tend to increase the probability of oil price shocks. If we continue the growth of oil demand [unintelligible], we would see production outside of OPEC about flat, so that would increase the chance of something happening there. If world growth were to go significantly below potential, that would certainly reduce the chances of oil price shocks.

MR. ANGELL. But on the fiscal side I'm afraid it works the other way. That is, at some point in time if we pursue, for example, the alternative of earlier restraint, then we increase the risk of either tripping the Gramm-Rudman-Hollings [provisions] or getting changed legislation.

MR. HOOPER. What matters here is what's happening to real activity. If we're holding the oil price unchanged in real terms so that greater inflation results in an increase in the nominal price but not necessarily [unintelligible] your question. Clearly, there are fiscal shocks; we've had a more expansive fiscal policy than--

MR. ANGELL. It seems to me that the Committee ought to keep in mind when we talk about these sacrifice ratios that we could take, say, alternative 2 of pursuing a [constant] 4-1/2 percent inflation rate or alternative 3, say, assuming a rate of increase in inflation of 1 percent a year, or we could go with 4, which would be our [price stability] objective, and then we would follow those alternatives out. There's no guarantee that one would not encounter even more likelihood of a serious financial upset that might engender a significant [rise in the] unemployment rate. So it seems to me it might be possible that the cumulative sacrifice we're talking about might be higher

under a constant inflation target or an increasing inflation target--if anyone wanted to do that--than it would be under a zero inflation target.

MR. PRELL. It could be. A sense of this financial upset that you refer to might be one of [unintelligible] or sharper adjustments. [Unintelligible] you might get [unintelligible] by hitting the system without regard to the financial dislocations, affecting expectations more strongly. You're just perhaps, with the financial effects, layering on another contraction of [unintelligible], which means you get more bang for your interest rate buck in slowing the economy and inflation [unintelligible].

CHAIRMAN GREENSPAN. Let me follow up on that issue. My impression is that they would not get what you're suspecting at 4-1/2 percent because the model would tend to keep the unemployment rate from moving dramatically. The way the econometric structure is put together you don't get the type of dynamics that probably would occur. Since I haven't asked the question in 6 months on the crucial area, or one of the crucial areas of this whole business of tradeoffs--the Phillips curve or the variations thereof and the relationship between wages on the one hand and the gap on the other in whatever variation we're looking at--could you review what our experience has been in the last several years? The unemployment rate has come down, obviously, a great deal; the wage rate has gone up some but less than I suspect earlier configurations of the model would have indicated. Could you address that question specifically with respect to how important that is? In other words, is it a minor issue or one that gives you concern about the range of potential error in these various different tradeoffs, projecting them out for a five-year period?

MR. SLIFMAN. Well, on Exhibit 10 the chart in the lower panel shows the simulation in the wage and price sector taken together. So, it has the Phillips curve and then also the mark-up. To be sure, you can see that in 1984, as I said, there was a substantial error; but it had dissipated over the subsequent year and a half. And in the most recent period, this dynamic simulation of the wage and price sector together measured on the price variable has been pretty much right on track. Now, we also did some simulations of the wage equation alone. Again, it is true that there was a period where the model was tending to overpredict the actual experience--that actual wages were falling faster than the model would have predicted. So, between '81 and roughly '85 there was a period of overprediction in measured growth rate terms. But since about the middle of 1985, again measured in growth rate terms, the model has been pretty much right on track.

CHAIRMAN GREENSPAN. You're using the same structure?

MR. SLIFMAN. This is sort of estimating it up through--

CHAIRMAN GREENSPAN. '79.

MR. SLIFMAN. '79 and then--

CHAIRMAN GREENSPAN. All of these simulations are out-of-[sample] simulations?

MR. SLIFMAN. Right, correct.

CHAIRMAN GREENSPAN. When was the structure last estimated? In other words, when did you actually fit the last set of parameters into your structure? When was it last re-estimated?

SPEAKER(?). The equations on which the future simulations were based in the presentation today were estimated within the last year. But the basic structure of the wage and price simulations in the model, in terms of the variables that appear on the right hand side, take the form in which they entered and have been essentially unchanged since probably 1980-1981.

CHAIRMAN GREENSPAN. Have the coefficients changed materially?

SPEAKER(?). The coefficients have changed some; and it turns out that if we take the exact specifications and add them up [unintelligible]. If you simulate that sector forward for 1989 it tends to overpredict both the rates of wage and price [unintelligible] maybe 1 percentage point or more. So, you get probably three-quarters--

CHAIRMAN GREENSPAN. That's right. I think that [unintelligible] interesting. My problem with out-of-sample projections is that an out-of-sample projection from a model which is awful never gets published. People go back and re-estimate the structure. And I just want to make sure we know that what we're dealing with here are endeavors that fit the system; I don't know to what extent the structure will change in here. The only reason I raise the issue is that I get a little concerned about the size of some of these numbers, as though we know them with some degree of [precision].

MR. PRELL. Sure. We [don't] make any strong claim for precision here. The basic question is: Is there any relationship between the slack in the economy and wage and price [behavior]?

CHAIRMAN GREENSPAN. The answer is unequivocally "yes" on the basis of that, which is important--

MR. PRELL. Now, obviously, we're making our decisions as we go along. Some notion of how much effect we're going to get for various--

CHAIRMAN GREENSPAN. I grant you: Knowing the sign is very important.

MR. PRELL. Let me just say, and Larry referred to this, that we have had underway a comprehensive examination of this issue; had it not been for the overload we reached when you requested this briefing, we would have had it done by now. It will be available before very long. And it will explore all of these specifics as well as amplify what already has been indicated about the various tests that we did to see whether there were structure changes.

MR. STOCKTON. I would just add, on the basis of the work we've done to date, that we have done an experiment that is, I think,

exactly like you would wish us to do. That is, taking ourselves personally out of this, we went into the published literature and pulled out three different published equations and paradigms. We put them through a test using data as they exist and what people are actually using and did a series of stochastic simulations [and ran regressions] out of sample. The results of those show what I guess you'd expect them to show. All the models were misspecified to some degree or another. That is, they all perform worse out of sample than they do in sample. But the standard error on the equation that is quite similar to the one that is used in the quarterly model was by far the smallest for a 4-to-8-quarter-ahead forecast, a standard error on the order of 1-1/2 percent. Now, that 1-1/2 percent is small in terms of econometrics and what you're actually able to do in real time forecasting. But it's huge, I would imagine, from the perspective of the Committee in terms of the kind of errors that you can expect to see over a horizon as short as 4 to 8 quarters. But I think that's about as much science as we can bring to bear on the issue at the moment.

CHAIRMAN GREENSPAN. Well, I think that's a fair statement. Lee Hoskins.

MR. HOSKINS. Yes. Again, I think the staff did a good job in terms of laying out alternatives; let me compliment you on that. And I also compliment you on that last statement because I think that's absolutely accurate. We have poor tools and we do the best we can with them. Several comments have already been made, most of which I agree with. I think Manley was trying to get at the idea, and I share some of its content, [unintelligible] that the 1980 examples surely must be an upper limit to the sacrifice ratio, if you want to put it that way. That's just an observation I want to make about it. Now, I'm also struck that the [policy prescription] not only of a Milton Friedman but a James Tobin in the late 1970s and early 1980s [implied a] horrendous cost to keep inflation down for a very long period of time. Again, not to be overly critical of these kinds of exercises, I think the staff itself in 1983 ran roughly the same kind of experiment here at the Board. We looked back at that exercise and found that it substantially overestimates the cost--at least it looks like it does now--of getting inflation down. So, I think we do run the risk of seeming to err at least on one side in these exercises--unless you bought the full credibility model, in which case we'd probably run the risk of erring on the other side of it. Having said all that, one observation I'd make, which I think Governor Angell was getting at, is that we are measuring the cost of reducing inflation. If one is trying to make a decision about whether or not it's worthwhile doing, one needs to measure the benefits of having a zero rate of inflation--that is, in the next 5 years out or 10 years--and then compare that with the cost of the transition, because many of us believe there are some gains to maintaining price stability in terms of economic performance.

Finally, I have a couple of specific questions and I'll just rattle those off: 1) Why do international investors lose confidence in the dollar when we've stabilized it? 2) I'd like you to explain to me the relationship of real interest rates to the deficit. And 3) I guess Wayne has already made this point, which has to do with oil prices; I would concur with his observation that in a price stability

case you're much more likely to have oil prices in real terms perhaps declining rather than rising.

MR. HOOPER. Well, let me address the question about the willingness [to hold] dollar assets in exchange for disinflation. Clearly, the rise in real interest rates would be in favor of the dollar; but in that case, the current account deficit is persistently [growing]--we're up to 1/2 percent of GNP and it's widening in absolute terms. And the U.S. [external] debt is growing to levels that perhaps could be a source of concern at some point. As to when the shift in [unintelligible] takes place, that would be hard to say; and it's one of the reasons we considered two clearly marked alternatives, obviously, since [unintelligible]. But we certainly couldn't rule out the distinct possibility of some movement against the dollar as the amounts of the external debt and debt payments begin to stabilize [unintelligible]. The second question was on--

MR. HOSKINS. How real interest rates are related to the deficit and what economists might have to say about it empirically.

MR. PRELL. Well, we know there's a reigning opinion on this. Clearly, it has become much more fashionable in recent years to take the view that there is not the kind of correlation that has been conventionally [believed]. The Board model, in estimating these relationships does find the more traditional [unintelligible] budget deficit does [tend] to raise interest rates. We may live in a more [unintelligible] world but we can't detect it; it means [unintelligible] this correlation. But if this [unintelligible], when there is a [big] increase in government debt relative to the size of the economy it does tend to raise interest rates. In our baseline we've assumed that if the size of the government debt relative to GNP is [trending] down, it would tend to allow real interest rates to [decline].

MR. HOOPER. On the question about oil prices: yes, clearly, as we discussed before, if they were not very [successful] in slowing real output, the implications for real oil prices would tend to be more favorable. If we go back to the early 1980s, for example, the difference is that oil prices were at substantially higher levels to begin with; and perhaps part of the more favorable outcome then had to do with the fact that we were beginning to be on the down side of an oil price shock. We also had a very small rise in the dollar. Both of these tended to reduce somewhat the [costs] of disinflation in the world in that period, relative to a period when oil prices and the dollar were moving differently. At this point we are at a very low relative level for real oil prices. We're [assuming] the production costs are insensitive to oil prices in some of the marginal areas. And the outlook for production outside of OPEC does not look particularly good. So it's a very low downside limit on the oil price situation this time as compared to the early 1980s when there was clearly a very strong downside potential.

MR. HOSKINS. I'd just comment on Mike's budget [response]. I think that was a fair statement on the deficit. You also mentioned the possibility of [spurious] correlations. Some people argue that it may be the level of government expenditures that is correlated with deficits. That's one source of it. Another source would be a change in savings based on something like appreciation of the stock market.

MR. PRELL. Well, we don't deny the existence of differing views on this; and we view this as a legitimate area for continuing research. But this is the model we have at this point and the one we've found best fits the historical experience. But we [realize] it is an area of continuing debate.

MR. STOCKTON. In the forward-looking model, individuals are assumed to look forward and see the increased tax liability that accompanies the increased spending today. That is imposed in some sense in that model. Most independent tests don't seem to find the offsetting private savings behavior with respect to [unintelligible]. But it does not have the same kind of real interest rate effect as in the Board staff [model].

CHAIRMAN GREENSPAN. Mr. Boykin.

MR. BOYKIN. Mr. Chairman, Wayne Angell and Lee Hoskins pretty well asked my question but I'd like to ask it slightly differently. I'm looking at Exhibit 8. When you look at the four charts there: you have the GNP deflator at zero in 1995; you have the unemployment rate in 1995 at 7 percent but the line is heading down; you have real GNP above potential growth; and you have interest rates coming down. Using the assumptions that are behind this, it seems to me that if all of that would happen it would be a very favorable picture. The question then, of course, is: What happens after 1995? I know you haven't done that work. But at this point do you know whether you would expect continued decreases in the rate of unemployment, continued growth of the GNP above the potential rate, and interest rates possibly coming down a little more if we could reach this point by 1995?

MR. SLIFMAN. Well, it's not so much a matter of what we would expect; it's really a question of what policy actions would be taken at that point. We expect that the policy action that would be taken at that point would be to ease monetary policy further to bring down real interest rates as a way of trying to continue to support real GNP and bring that unemployment rate down closer to the natural rate. So, the point that I'm trying to make is that you end this period with an unemployment rate, in this model, that is still substantially above the natural rate. It does [pose] this continuous strategic problem because, with the unemployment rate above the natural rate at that point and with essentially no inflation, the model then would want to produce an outright deflation, at least for some time. That's really the point I was trying to make.

MR. BOYKIN. Well, I guess I would always assume, maybe erroneously, that of course we would make the right policy decisions. And with the unemployment rate holding steady there for 3 or 4 years and the downward slope of that line, I wondered whether we could expect that to continue.

MR. SLIFMAN. Well, that downward slope--and maybe it's a problem of the way we charted this--the rate is only going from 7.2 percent down to 7.0 percent. So it's--

MR. BOYKIN. Yes, but it's the right direction.

MR. SLIFMAN. That is correct.

MR. PRELL. When we tried [unintelligible] we have to bring it down and you get an overshoot in deflation. That's the basic [thrust]. One could come up with an infinite number of year-by-year paths here. But we have a couple of things that we think are broadly representative of the problem that you face.

MR. SLIFMAN. Let me also just reemphasize the point that this model does not incorporate any credibility effects. It seems likely, if one were successful in bringing down inflation the way that this particular simulation shows, that probably over time the credibility effects would begin to build. So the final result in terms of the costs probably would not be as high as this simple simulation of the model itself wants to produce.

CHAIRMAN GREENSPAN. Governor Seger.

MS. SEGER. I have a couple of questions and a couple of comments. First of all, in regard to using the Hoey Survey: I know that you've all known him for a long time; I think if you administered truth serum to him he would be the first to tell you that this is a very shaky, flaky, sort of survey and he wouldn't want you using it as an indication of inflation psychology. Although I understand the need for a number, that doesn't make it good. Secondly, as I read through here, I'm trying to figure out the answer to the question: Credibility with whom? What group is it that we're trying to impress or convince that we're committed to price stability? Frankly, if you get outside the Beltway, most people in America don't know who the President of the United States is! And fewer know who the Chairman of the Federal Reserve Board is. Other than 32 people on college campuses and 25 Fed watchers on Wall Street they have never heard of the FOMC.

MR. PRELL. Well, a simple response to that is that you would then lack [a forum] to achieve anything by declaring your intentions.

MS. SEGER. Well--

MR. PRELL. [Unintelligible.]

MS. SEGER. We sit here and assume that everybody is sitting on the edge of their chairs waiting to see what the FOMC does. I hate to tell you this, but they're more interested in the Redskins football game yesterday.

MR. PRELL. We have made that assumption. We clearly--

MS. SEGER. I don't want to be disillusioning; maybe I just come from an unsophisticated part of the country where they like football. Also, when you had this list in Exhibit 1 of possible impediments to price stability, I agree about a jump in the world oil prices, fiscal policy miscues, etc. But I'm more and more depressed by moves that are taken by governmental bodies that are inflationary that are not fiscal policy. I'm thinking more of microeconomic things.

MR. PRELL. Those things fall roughly in a class of supply shocks, along with the oil price change process.

MS. SEGER. I don't call that a supply shock: putting in some regulation that has tremendous--

MR. PRELL. But it really is. It reduces the productivity that exists in capital in many cases or--

MS. SEGER. You would call the minimum wage hike a supply shock?

MR. PRELL. Yes; regardless, it shifts that labor cost function.

MS. SEGER. I guess to me a shock is something that just comes from out of the blue and not something that is legislated by people down the street here. That is not the connotation.

MR. PRELL. Within our ability to incorporate these things in models, they are the same.

MS. SEGER. Okay. Also, I couldn't sit here and listen very easily to the comments on the early part of this decade and how the disinflation costs were not that great. Possibly from Washington, D.C. they didn't look that great; or if you were sitting with the security of a government job or a government paycheck, perhaps they didn't. But I can tell you that there are a lot of people who paid dearly for that disinflation. They lost businesses; they lost farms; they lost jobs, and they're still without them. I'm not saying that the fight shouldn't have been waged; it probably should have. Maybe nationally the cost was very marginal, but when two states assumed about the whole cost it looked a little heavy. Also, in looking ahead at sacrifices, I think you have to be much more micro in your analysis and think far more about sectoral differences, because it doesn't all average out. I can tell you--pardon?

MR. PRELL. One of the things that we know we didn't treat, for example, were distributional effects. That's something you might want to take into consideration.

MS. SEGER. I think that's something you have to look at, though.

MR. PRELL. I think we'd have a very difficult time bringing you any very concrete quantitative results on that. That isn't to say it's not something we would want to think about.

MS. SEGER. Well, [remember] some of the pieces of 2X4s that floated around this building that came in from builders in the early '80s! I think that suggests that at a certain point the sectoral burden gets a little heavy, and they speak out even if it's by flooding [us with] 2X4s. Anyway, thank you. It was a very interesting presentation.

CHAIRMAN GREENSPAN. President Melzer.

MR. MELZER. I had one question, Mike. You mentioned at the beginning that five years was a relatively short time frame in the sense, I think, that if you didn't get right at it there was no way you could slow money growth by enough, quickly enough. I don't want

to read too much into what you said. My question revolves around what would happen to the sacrifice ratio if the time frame were longer? I think I know what would happen to the expectational effects and the credibility and so forth. But do you have any sense of that? If you made it 10 years instead of 5, does the sacrifice ratio come down materially?

MR. SLIFMAN. In this particular model, to a first approximation the model is linear in regard to these sacrifice ratio calculations. So, if that were to be stretched out over a longer period of time it would still require the same cumulative excess amount of unemployment; it would just be stretched out further--if, of course, the amount of disinflation were the same.

MR. MELZER. So, it would be the same?

MR. SLIFMAN. That's the first approximation; it is not precise.

MR. PRELL. In essence, if you have 2 percentage points of excess unemployment for one year or 1 percentage point in each of two years, you have essentially the same effect in terms of this.

MR. MELZER. And then, if you believed it, it becomes more of a political question than an economic question--if the model were exactly right.

MR. STOCKTON. Theory actually says that if you were to announce something that you were going to do in terms of money growth reduction in the future and if you allowed people time to adjust to it, the cost would actually be lower. But in essence, to follow that line of thought means that if we say we're going to do something two or three years from now, then the workers at Boeing, for instance, would reduce their wage demands in anticipation of what your [announced policy] was going to be. So, in some sense, while [announcing] what your actions were going to be may work--or it's how the model works out in theory--it doesn't seem very sensible from a policy perspective to expect that. In terms of getting to it early versus late, the issue really is that five years isn't a very long time, even in the case where you might have credibility, in terms of getting on a path whereby you don't end up the five-year period with some major disequilibrium or imbalance--like having the unemployment rate very high. The P* model tells a very similar kind of story to the Board's quarterly model in that if you end up with a big price gap at the end it must mean either that velocity is very far from its equilibrium and/or that output is very far from its equilibrium. In essence, the longer you have to get to this end point, the more adjustment can occur. Within the five-year period you can reach both price stability and some general real output equilibrium much easier than you can if you try to do it quickly and you have to be pushing very hard on one particular level.

CHAIRMAN GREENSPAN. President Forrestal.

MR. FORRESTAL. I have just a couple of comments, Mr. Chairman. First, I would join those who compliment the staff on this presentation. It's one of the few times I can remember when we've had the opportunity to sit back and look out into the future rather than

dealing with the short term. I suspect, though, when push comes to shove that we're going to be back in the short-term policy making mode anyway.

CHAIRMAN GREENSPAN. It's always good to have background and a framework with a notion of where we're going.

MR. FORRESTAL. Sure, that's right. My gut reaction, as I looked at this and heard the discussion today, is that the cost will probably be greater in terms of GNP output and unemployment than this presentation would suggest. Be that as it may, the only comment I would make is that, even if you accept the zero inflation base case, the question that I ask myself is really a strategic question in terms of future policy and what it means in terms of our future actions. I question whether getting from where we are--at roughly a 4-1/2 percent inflation rate--to zero in 5 years, with the associated cost of a 7 percent unemployment rate, will be acceptable to the country at large. That's a public policy question. I guess it raises the question of whether or not, in the absence of the Neal legislation or something like it, the country will accept the cost of bringing inflation down from 4-1/2 percent to zero. The parallel to the 1979-80 time frame, it seems to me, is not quite applicable because we were coming from double-digit inflation, and I think people clearly recognized that that was a terribly insidious thing that was happening. I'm not so sure in the present environment that people will be willing to accept getting from where we are in terms of inflation now to zero inflation. There is an acceptance now--rightly or wrongly, and I think it's wrongly--that 4-1/2 percent inflation is not all that bad. As inflation goes up, there comes a point where people get concerned about it; I think people would be willing to suffer some sacrifice to go from, say, a 7 or 8 percent rate of inflation to something lower than that. But to go from 4-1/2 to zero, I think, raises a question about the political consequences of getting from where we are in 1989 to 1995. I'm not saying that I disagree with the concept of moving in that direction. But I think a question that we need to ask ourselves is whether 7 percent unemployment will be accepted by the public at large and, particularly, by the Congress.

MS. SEGER. You'll find out next year.

CHAIRMAN GREENSPAN. I think that is a crucial question, and it's obviously implicit in everything we do. But before we confront that question, which I think we ought to discuss toward the end of this session, let's find out what we know about it and what the facts are before we try to make political judgments. I think we cannot approach this subject without raising the issues that you're raising.

MR. PRELL. Mr. Chairman, I can't help but say that I think President Forrestal is leading up to your agenda as opposed to ours, but there is a nexus here. And that is, if the public thinks that the FOMC is thinking this way, then that means there is no credibility to the disinflationary commitment.

MR. ANGELL. Absolutely.

MR. PRELL. And what we were pointing out in the Hoey exhibit, whatever quality you want to assign to that, was that there doesn't seem to be an expectation of further disinflation out there.

The basic perception seems to be that the Federal Reserve will resist acceleration [of inflation] but will not run the real risks of subpar economic performance to bring the inflation rate down. So we're in that credibility bind, I think.

MR. JOHNSON. Well, I don't disagree with that completely. But I would say, if you look at that Hoey survey--and I agree that a survey is a survey--the fact is that it has been trending down consistently. You're looking at a point in time as opposed to a trend; you [extrapolate] the trend in expectations and we're coming down. So I would say that if the Fed has been gaining credibility all along over the last several years, instead of looking at it at some particular point if you project that trend forward and assume we continue to behave in a credible way you are getting long-term--

MR. PRELL. You've got to look at that [as an expectation that the rate] will go below the actual inflation next year.

MR. JOHNSON. Well, I don't know.

MR. PRELL. [Unintelligible.]

MR. JOHNSON. I have no idea. All I'm saying is that the trend has been coming down. And it has been coming down on the 10-year survey at times when the one-year expectations and the actual inflation rate have been rising.

MR. PRELL. But it has come down toward the actual inflation rate. That rate has been slower.

MR. JOHNSON. I don't know what it's going to do in the future. I'm simply saying that it's plausible that we're gaining credibility. If I remember right, and I better go back and look at it, aren't there a few periods when--?

SPEAKER(?). Exhibit five.

MR. JOHNSON. Exhibit five.

SPEAKER(?). That reminds me. Just one other question on your forward-looking model: Was that a down [unintelligible] expectations?

MR. STOCKTON. No, not with a forward-looking model without the [unintelligible].

SPEAKER(?). I see; so you just push it.

MR. JOHNSON. My point here is that 10-year inflation [expectations] in the last year have been trending below the actual inflation.

MR. PRELL. Well, you don't want to extend this forever. Basically, you had a period in which the short-run inflation was very much influenced by food and the price of oil, which I--

MR. JOHNSON. Whatever. I'm simply saying that the market clearly was looking through that phenomenon and saying it's credible for the long run; we're not worried about these supply-type shocks.

MR. KOHN. President Forrestal implicitly raised another question that President Hoskins also raised, and we wrestled with it to no end. And that is: What are the costs and what are the benefits of going to zero as opposed to a steady rate of inflation if you could maintain it at 4-1/2 percent? And they [concluded] that if one believes in one's gut that that's the right thing to do, that's the way we have to go. But looking at the literature, there isn't very much out there that enables you to pinpoint the costs of staying at 4-1/2 percent, if you were able to, as opposed to going to zero. There are some things we can identify having to do with interactions with the tax system and so forth, shoe leather costs, and what not. But they are very hard to quantify and, therefore, would be very difficult to convince the body politic of.

CHAIRMAN GREENSPAN. The crucial issue is that it presupposes you can stay at 4-1/2 percent if you choose to.

MR. KOHN. Right; that's correct.

CHAIRMAN GREENSPAN. Easier than at zero.

MR. KOHN. Right.

CHAIRMAN GREENSPAN. Vice Chairman.

VICE CHAIRMAN CORRIGAN. Let me also congratulate the staff; this really was a terrific presentation. There are 3 or 4 main things that I, at least, draw from it. But the first and the most important is that I think it would be very, very difficult to safely conclude that one could do a heck of a lot better than the summary on Exhibit 14, line 1. Now, that doesn't say we can't do better. But to me the empirical evidence, both in the United States and in foreign countries for the time periods covered in this exercise and for other time periods not covered in this exercise, suggests that you'd be very, very hard pressed to safely conclude that you could do a heck of a lot better than line 1 on Exhibit 14. But I think it's also important to note in that regard that when you look at other countries and other times, the cases in which you have seen results that tend in some sense to be different than line 1 on Exhibit 14 have usually been accompanied by very, very sharp fiscal adjustments--not the kind of gradual adjustment that is built into the base case here.

The second point I would make is that if you look at those estimates of the costs in the qualified way that I have, I think we do have to keep in mind that these are not small costs in human terms. That's partly, I think, the point that Bob Forrestal was raising. You start talking about a sacrifice ratio of 2.2 and 2.2 sounds like a little number. But in terms of the behavior of the economy over a very long period of time it carries with it some rather profound implications. One of those profound implications to me is that we have to be very, very careful not to leave the wrong impression about this. And the wrong impression in my way of thinking is that this somehow or other is a "gimme putt," which it is not. I think it's especially not when you look beneath some of the numbers that are even

in the base case. It already has been touched on but, for example, if you maintain a current account deficit of 2-1/4 percent of GNP throughout the whole period, I don't know what that means in absolute numbers but my rough arithmetic tells me that our external debt as a percentage of GNP would end up over 30 percent. We'd be sneaking up on Brazil! I don't know if that's quite right, but it's got to be in that order of magnitude, which is another way of saying that even in the base case we are talking about a long period of time in which GNP growth is quite subdued by historical standards and, even with that, the external side of our economic and financial situation gets much worse in many respects.

Having said that, I come back to Governor Angell's comment earlier and that is: What do you measure the cost relative to? I think it's absolutely unambiguous that if we measure the cost relative to a strategy of accelerating inflation, that's easy. The cost of accelerating inflation obviously would be greater in the fullness of time. But what about a slower approach to price stability? Or what about a goal that looks more like 1954 to 1965 on the chart earlier on in the presentation? I think those are legitimate and important questions, Mr. Chairman. From my perspective the basic thrust of what Governor Angell said early on is exactly right in terms of "relative to what?"

CHAIRMAN GREENSPAN. Well, let me just add something to this. This is not an all or nothing game. In other words, we don't either do it or not do it.

VICE CHAIRMAN CORRIGAN. No.

CHAIRMAN GREENSPAN. It can be quite plausible to start in this direction and fine tune it, so to speak, and after a year and a half, say, decide that something has been accomplished and that we declare victory.

VICE CHAIRMAN CORRIGAN. That, of course, is what I'm suggesting. The last point that I would make is: What do we think we can do to improve the prospects of getting a better result, whether better is defined relative to Chart 14 or something else? Here, I must say that I'm a little dubious about betting the ranch on this credibility thing, because even if you look at the countries that are thought to have very high credibility, such as Germany, you can find that for periods other than the '81 to '85 period that's on the staff's chart the costs are there and they are quite real--as I said, even where credibility is thought to be high. That's not to say--whether it's in the context of a Neal [resolution] or something else--that [more] credibility might not get a somewhat better result. But I for one would be very reluctant to bet the ranch, so to speak, on the so-called credibility argument. On the other hand, if there were some prospects for complementary policy initiatives that could get at the savings/investment problem or get at the productivity problem, that's a different matter. If you had a framework over this 5- or 6-year period, for example, in which productivity growth were on average 1/2 point more than it has been and more than is built into these numbers, you would be looking at a different ball game. So, I do think that this line of questioning in terms of what helps is not irrelevant; and it gets back, of course, to the all important question of fiscal policy. One of the things this says to me is that you've been right

all along; you usually are. We don't need just a balanced budget or even a balanced full employment budget; we need a surplus. And we probably need a full employment surplus in this time frame in order to make either the holes a little rounder or the pegs a little squarer. Any way you cut it up, I think the costs--whatever they may be--obviously are going to be much greater in a context in which this exercise is approached with monetary policy and monetary policy alone. I think we can perhaps do better than line 1 on Exhibit 14; but I'm very hard pressed to think how we are going to do better without complementary policies coming from other areas.

CHAIRMAN GREENSPAN. President Boehne.

MR. BOEHNE. Well, most of the questions and points that I wanted to make have already been made. One thing that I get out of this is that we get into inflation and we tend to get out of inflation not so much in a straight line route but over a period of time over different cycles. Someone made the point earlier that inflation has built up over the 15-year period because it would peak out in a subsequent cycle at a higher rate than the previous inflationary peak and it wouldn't drop as low. And I wonder if that is not instructive in terms of how one gets out of it. As much as I would like to say, for example, that we want to set out on a course that brings inflation down over the next five years and then we're going to hold it there, I must say that my reading of history and my sense of what makes a country like this go doesn't encourage me that that's a very likely outcome. What does seem to me realistic--and it is [the course] that we really have been following in the '80s, if not by design, certainly by our actions--is that to get the inflation [progress] we want over a period of time we have to bring down the peaks of inflation and to bring down the troughs of inflation from cycle-to-cycle. What is different about the '80s is that we have kept inflation from accelerating all that much in this cycle. Now, sooner or later, we will have a recession. I don't think anybody around the table wants a recession or is seeking one, but sooner or later we will have one. If in that recession we took advantage of the anti-inflation [unintelligible] and we got inflation down from 4-1/2 percent to 3 percent, and then in the next expansion we were able to keep inflation from accelerating, sooner or later there will be another recession out there. And so, if we could bring inflation down from cycle-to-cycle just as we let it build up from cycle-to-cycle that would be considerable progress over what we've done in other periods in history. It seems to me it's [a policy] that is doable in terms of public and political acceptability.

CHAIRMAN GREENSPAN. President Guffey.

MR. GUFFEY. Thank you, Mr. Chairman. I think some [good] questions [have been asked] and perhaps some satisfactory answers have been given; but I want to join those who suggested that we have not quantified the benefits of zero inflation or price stability. I think intuitively we all would agree that it has benefits; but when we talk about the costs then in some way we have to quantify the benefits, it seems to me. I don't mean to say that we shouldn't move toward price stability--or zero inflation, if that is price stability--but rather that when we set upon a course such as this we ought to know what we're going to achieve if we get to the goal. My own view, looking at this exercise, is that however good or bad it may be, if we're really

serious about price stability we ought to set off on the course of a tight money policy and get it over with and move on to an economy that could perform for another number of years in a very satisfactory manner, if we could check on this beyond five years. But that also says to me that in the short run, as we think about what policy should be put in place now, it doesn't worry me as much that with a tight policy now we might skim along the edge to a recession. That is to say, in the immediate upcoming periods, the fear of recession simply isn't as great after seeing this exercise as it might have been before; because if I understand this correctly, in a recession we would expect to get some of the benefit of moving toward price stability. As Ed Boehne or somebody said, I don't think that any of us is looking for a recession, but I don't think we should shy away from it either.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. I have two comments about what Vice Chairman Corrigan said. I would agree that you don't bet the farm on credibility; but it seems to me, Jerry, that you're assuming there is no improvement in credibility. And I don't--

VICE CHAIRMAN CORRIGAN. I didn't say there was none.

MR. PARRY. You did because you said that you thought it was a zero for the zero inflation base case, which really does assume that credibility [unintelligible] in a very standard model way. I think we can expect better than that--not that we should go to the strong case, but I would expect something better than that.

VICE CHAIRMAN CORRIGAN. I am not prepared to make that bet.

MR. PARRY. You wouldn't expect any?

VICE CHAIRMAN CORRIGAN. No.

MR. PARRY. All right. Secondly, I--

MR. CORRIGAN. Wait a minute. Did you say any credibility effects?

MR. PARRY. Beyond what is assumed by a model that uses past experience as basically conditioning expectations for the future.

VICE CHAIRMAN CORRIGAN. You might get some benefits. But again, even if--

MR. PARRY. So, there's no value in stating your [inflation] objective or having a resolution or anything like that? No value whatsoever?

VICE CHAIRMAN CORRIGAN. Why are wage rate demands in Germany going to be 9 percent next year? Because the Bundesbank doesn't have credibility?

MR. PARRY. So you would assume no credibility improvement?

VICE CHAIRMAN CORRIGAN. No. I said that if you had a Neal amendment or something like that and certainly if you demonstrably had other arms of public policy--

MR. PARRY. Well, I want to talk about one as well.

VICE CHAIRMAN CORRIGAN. I'm not saying it would be zero, but I'm saying I think it would be a serious mistake to assume that it is very significant.

MR. PARRY. Okay. All I'm saying is that you're citing a limiting case where it's zero.

VICE CHAIRMAN CORRIGAN. I'm not citing a limiting case where it's zero.

MR. PARRY. Well then, I misunderstand how credibility is formulated in this model.

CHAIRMAN GREENSPAN. He's saying that in Germany the Bundesbank has credibility; it isn't much, yet it's not zero.

VICE CHAIRMAN CORRIGAN. I'm saying that if you take that cell on Exhibit 14 where the shortfall from potential GNP is 20 percent--

MR. PARRY. Right.

VICE CHAIRMAN CORRIGAN. --that is the so-called base case model but it essentially has a [unintelligible] of expectations built into it. My opening statement was that it would be very hard to conclude safely that you could do much better than that. Then I went on to say that there are some things that might permit you do somewhat better than that. And credibility might help. But I'm saying that I don't think it's going to help all that much; experience suggests that we should be very, very cautious on how much we think it might help. That's what I'm saying.

MR. PARRY. With regard to stating our objectives conditioned by, say, the fiscal authorities: It seems to me that if we're going to do that, we would have no credibility because--

VICE CHAIRMAN CORRIGAN. Say that again.

MR. PARRY. Well, we're in charge of what happens to prices.

VICE CHAIRMAN CORRIGAN. That's not what I'm saying.

MR. PARRY. Well, I didn't understand you then.

VICE CHAIRMAN CORRIGAN. I'm not referring to Federal Reserve policy. What I'm saying is that if we had a credible fiscal policy in this country in the first place, or if there suddenly were a sweeping budgetary agreement struck independently by the White House and the Congress, then it would help.

MR. PARRY. I don't deny that.

VICE CHAIRMAN CORRIGAN. All right.

MR. STERN. An interesting dilemma: If you start with cell 1 on Exhibit 14 that is a course in which the higher the sacrifice ratio that you start with, the greater the burden you place on benefits to make the whole exercise worthwhile. Or another way of saying it is the more seriously, it seems to me, you've got to consider stabilizing inflation at the current rate, assuming that's possible--I have some doubts about that. But if you start with something like that I would be surprised, given what I know about the benefits, whether you can grind them out and make them equivalent to the costs.

SPEAKER(?). But that's a question--

MR. ANGELL. You have to take the present value of all the benefits in the future.

MR. STERN. I understand; I understand that.

MR. ANGELL. And the present cost of not doing it.

MR. HOSKINS. Let me ask you: Would you want to stabilize the rate of inflation at 10 percent? Or zero inflation?

MR. STERN. No, I'm saying I personally would start with the weak credibility case. So that gets me off to a different start. I'm saying that if you start with something as pessimistic as that I think you have a difficult challenge in a rigorous way to justify it.

MR. LAWARE. What happens to credibility if we make an announcement of a goal and then don't make it?

MR. STERN. That's right. I personally don't think--

MR. JOHNSON. I agree; that's a good point.

SPEAKER(?). I think it's a very good point.

MR. JOHNSON. If we bite off more than we can chew and we are viewed as failing, we've lost a lot.

MR. LAWARE. Like below ground zero at that point.

CHAIRMAN GREENSPAN. President Black.

MR. BLACK. Like so many others, Mr. Chairman, I would compliment the staff; in fact, I did compliment Mike Prell before the meeting. And I'd like to compliment you in allowing us to talk about these things. I've been attending these meetings off and on for 30 years now and almost all the time for 16 years and in that period of time I don't think we've addressed a topic quite as important as what we're doing now. I know no one would have a lot of confidence in the econometric measures that one would use to determine what the costs of eliminating inflation are, but what to me comes out as most important is the qualitative differences between these various approaches. The backward-looking model, which is the traditional way we've looked at it here, makes the cost very, very high. But if we can assume that we have something like rational expectations and forward-looking

expectations and if we can assume that we have some kind of credibility and strength in that credibility, then the cost becomes considerably less. I think Manley made a good point a while ago, which Lee picked up on, when he said maybe the worst case is the one we had in the early '80s when we really hit the economy with a big shock without announcing exactly what we were going to do. I don't think we really anticipated ourselves that rates were going to go anything like that high; and yet from this vantage point, it seems to me the costs have been relatively low. There were certainly costs, but they were relatively low. And if something like the Neal resolution passed, and if we could state our targets--I would like to say over multiple years rather than just one year--in advance and come close to these and eliminate this base drift, then I think the costs are not nearly so scary as we seem to be concluding here. Finally, I'd like to pick up on Governor Angell's point about the cost of not aiming at zero inflation, which is the alternative. I think we have had a lot of experience of that in the postwar period. I think those costs are very great; and there are substantial risks that evolve from that sort of a program. So to me the case is to try to [unintelligible] rational expectations to the extent that you can and back those up with as high credibility as you can and then the costs of doing what we'd all like to do are going to be lower than they would be under any of the other possible alternatives.

CHAIRMAN GREENSPAN. President Keehn.

MR. KEEHN. As always, I think history is an interesting way to look at things; and I find this chart on the bottom of Exhibit 2 to be fascinating with regard to where we have been. My hunch is that if we go back, most of the periods with bad inflationary results may indeed have been the result of some exogenous events or shocks over which we had [no control], I suppose, with some exceptions. It's not monetary policy that has been the cause of that. And it seems to me that that may be [the case] over a long period of time; this suggests that what we can do is just put continued pressure on this. If that's the way in which we can achieve the best results, I'd be reluctant to be so committed to an objective of zero inflation that it became [unintelligible]. And I think John LaWare brings up a good point: that if we become that committed to something and then we miss it because of events over which we have no control then the cost of that gets to be very, very high indeed. And I'd be reluctant to be so constrained.

CHAIRMAN GREENSPAN. Lee.

MR. HOSKINS. Let me just ask the question again, more generally, to anybody who wants to take it on: If you were sitting in 1980 or 1979 and you were looking at the estimates that either Friedman or Tobin gave to Gary's point you wouldn't do anything to monetary policy because the costs would appear so high. We are having the same debate now but we are looking at much lower costs. So it seems to me that the benefits, whatever they are, of a price stability policy become even more important because the costs are a lot lower now than they would have been if we had to do this at some other point in time. So I think we can trap ourselves with these estimates. I don't know how they're going to come out. I know what we've done in the past when we tried to do estimates; and what we've done in the past is overestimate the cost, at least in several cases that I've

looked at. So I think we have to be cautious about just saying the costs are high and the benefits are uncertain. It seems to me that we ought to look at the benefits and one, of course, probably has to do with uncertainty premiums built into interest rates. That presumably could be modeled. We could have some impact that would reduce whatever uncertainty premiums were there. There are a number of other potential benefits and I don't want to run through them now. I'm sure the staff is aware of them, but they are also aware of the difficulty of putting your arms around them.

CHAIRMAN GREENSPAN. Governor Kelley.

MR. KELLEY. Mr. Chairman, I have to come at this necessarily from a non-professional economist point of view and I happen to have a share in trying to form policy. So as I listen to this presentation, I try to ask myself: What does it make sense to do? And I see a situation here where we've got huge uncertainties. Many of them are in the model and are admitted right up front; they necessarily have to be there. A lot of them can't possibly be in the model, even though we may know what some of them are. Then, of course, there are a whole host of them we don't even know about that might [arise] as time goes on. It's easy to see, as Governor Seger points out, that there are potential human costs here; and they are huge if we make a mistake. We haven't taken a look yet at what the possible second five-years might be as a result of getting out to where we get in this model. And what, of course, may quite possibly be the biggest threat of all of this is the political threat: that we could very easily set out on this course, incur all of the costs, and have the political realities about the process before we got the benefits. That might be the worst of all worlds and, possibly, a fairly plausible one. So, what might make sense is to do two things that sound fairly simple and simplistic, but may be a pretty good challenge in themselves. One is simply to work to get the trends moving in the right direction without any terribly close attention to the slope of the curve--just get them moving in the right direction. The second is to work very hard to damp the volatility around the slope of those curves. To me the speed of advance is of secondary importance. If we can get it moving in the right direction, given all of these uncertainties, I think sometimes we'll be able to make fairly rapid progress and other times slow progress; sometimes we'll be doing well to hold our ground. If we get into a recession we might even have to take one step back. But basically [we should] try to figure out ways to set up conditions where we will be able to get the slope of the curves moving in the correct direction over time, without having to give too terribly much attention to any one particular time period.

MR. ANGELL. I have a question for, I think, Don Kohn. But if the others in monetary research wish to come in, that's fine. It's difficult sometimes to know what M2 growth path is really [apt] to restrain when we have changing opportunity costs of holding M2, for example. So I'm wondering: If we're in an environment in which the rate of interest is declining at an annual rate of 100 basis points--or as they did for a good portion of the period from June to December, I guess, declining at 250 basis points annual rate--how do we adjust M2 to know whether or not we still have restraint in place and a declining interest rate scenario? And how, on the other hand, do we know that we really have restraint in place in a rising interest rate scenario?

MR. KOHN. That's a very difficult question and one that I thought about with regard to the Committee's decision tomorrow morning, in fact, because we do have a situation now in which M2 is running pretty rapidly. One can see that it's really a function of the drop in opportunity costs of interest rates rather than some overrun in current-quarter GNP. At the same time, what I was going to say tomorrow morning is that it strikes a note of caution when the money supply moves this fast. Not many people would put money right into prices; in some sense, it's all a part of a very complex set of interactions. And the question is whether the interest rates, or perhaps exchange rates, that have gotten you those money supply growth paths are going to lead some time in the future to higher rates and increases in inflation. I think what we've learned over time is that when the money supply grows rapidly over long periods of time, even though we can explain it contemporaneously by the past declines in opportunity costs, inflation rate, [unintelligible], it's a cautionary summons. It's a warning bell going off. The P^* model was an attempt to cut through all that and to say: Suppose velocity grows at its long-run trend and output grows at its long-run trend, then how does money in a statistical sense feed through to prices? And where we are right now is that P^* is below P . We've got a sense of restraint on, but I think in one of Dave's charts, Exhibit 4, you can see that the projected growth in money gets you down where there isn't any difference between P and P^* in the early part of 1990 and then it rises again when money growth eases off. I don't think there's an easy answer to your question, Governor Angell. Ultimately, you would have to crank the whole thing through a big model of interest rates and money demand and all that sort of thing. The P^* model tends to cut through it a bit. I do think that some attention to these money growth rates when they get very high or very low provides a sense of discipline on the central bank to make sure it's not going too far off the track one way or another. And that's essentially what P^* attempts to do.

MR. ANGELL. Well, take table 1 of Mike's December 14th memo: table 1 does show on the accelerated disinflation path much lower [money growth] rates; and I presume when interest rates are declining toward the end then you show somewhat higher rates.

MR. KOHN. At some point you have to take account of the decline in velocity, this so-called reentry problem.

MR. ANGELL. Yes.

MR. KOHN. So, if nominal rates are coming down because inflation is coming down, at some point you've got to increase the real money supply to take account of that drop in nominal rates because velocity will react to that. But there are different scenarios; you can do it earlier or you can do it later in some sense.

MR. ANGELL. Well, Don, I guess the bottom line of my question is: Are we somewhat advantaged due to the fact that over the last 30 months we've had an M2 growth rate of something between 4 and 5 percent? Does this give us a better basis for watching this 5-year scenario than if we were in a period in which we--? I guess what I'm asking is: Do we have a start, in your opinion?

MR. KOHN. I think you do, because--putting it in other terms--what that M2 growth has done with the monetary restraint is that it in effect contained inflation at least, so that it no longer seems to be accelerating. So you're in much better shape than if you had started from a position in which M2 had been growing 2 percentage points faster and inflation was threatening to accelerate. Then you really would have more sacrifice to make. The sacrifice ratio might not be different, but the total sacrifice might be. So, absolutely, I think by acting with restraint over the last couple of years you have simplified or made a little less painful the job of the next 5 years if you were to aim at zero inflation. And by getting inflation expectations down, as Governor Johnson pointed out, and by getting I think a bit of credibility, you can see it in the bond market in 1988.

MR. ANGELL. But on Table 1, the Q-4 over Q-4 percentage change for 1990, I note, is 5 percent; and that looks fairly tough to do.

MR. KOHN. Fairly what?

MR. ANGELL. The 1990 Q-4 over Q-4 percentage change is 5 percent. That's in Table 1 of the December 14th memo.

MR. JOHNSON. For M2?

CHAIRMAN GREENSPAN. For inflation?

MR. ANGELL. M2.

MR. PRELL. There's not an absolute [consistency] with the other forecast materials we provided. We simplified some things and developed a baseline. We don't necessarily capture all the [details].

MR. ANGELL. Well, is this a velocity adjustment?

MR. PRELL. [Unintelligible.] But we make a certain assumption about the natural rate of unemployment and we mechanically derive things that probably we would want to modify judgmentally given all the other [unintelligible] about economic circumstances.

MR. KOHN. Right.

MR. ANGELL. So, during a period of relatively slow M2 growth over the last 30 months, V2 has responded somewhat upward above this trend path.

MR. KOHN. That's correct.

MR. ANGELL. So we're now getting a little adjustment back the other way?

MR. KOHN. Right. Actually, consistent with the Greenbook forecast we have a 6 percent M2 growth. One of things that we've adjusted here is an assumption about how banks and thrifts respond with their deposit rates. It might not be quite the same [assumption] as they use in this other model. So we have 6 percent and essentially no change in velocity next year.

MR. PRELL. Using the P^* you get the same monetary growth as we have.

MR. KOHN. Right.

MR. STOCKTON. With this particular simulation, though, somewhat slower money and somewhat higher real interest rates were occurring relative to the Greenbook.

SPEAKER(?). Somewhat slower GNP growth.

MR. STOCKTON. Somewhat slower GNP growth, right. We did not constrain ourselves to adhere directly to the Greenbook forecast with a starting off point that assumed, in essence, somewhat tighter monetary policy in 1990.

CHAIRMAN GREENSPAN. President Syron.

MR. SYRON. Mr. Chairman, I would think that probably most people around the table agree with the notion that we want to get inflation down over time but we're talking about how fast. Mike Kelley said something about the slope of the line. What I think is the real issue here, and several people have alluded to it, is the issue of political acceptability. Bob Forrestal raised that. There is a question [of our] not being a part of the government set up in the Constitution; but how long we can squeeze the--

CHAIRMAN GREENSPAN. We're going to come back to that question more generally. So I want to--

MR. SYRON. Okay. Well, I only wanted to touch on this. In terms of this exchange between Gary Stern and Lee Hoskins, it seems to me that in many ways we can't really compare the willingness of people to look at what happened in '79, '80, '81, and '85 with the current situation in that, as you said earlier, we were coming off a period in which people were afraid our capital markets were going to be destroyed perpetually--that there was going to be [no] long-term bond market. And we had accelerating inflation. So there was much, much greater concern and much, much greater willingness to take tough action in that circumstance. That may have something to do with the fact that of the sacrifice ratios that are shown in Exhibit 9, the ratio of 1.8 for that cell [for the 1981-85 period], for whatever it's worth, is the lowest except for the 1970-72 period when we had [price] controls, than any cell, domestic or foreign, with the exception of the one in France. Whereas now, I think we're in a period in which most people's expectation is that we have relatively stable inflation. We need to get it down over time, but we have relatively stable inflation. That is dramatically different than the other situation.

CHAIRMAN GREENSPAN. Governor Johnson.

MR. JOHNSON. What I want to say sort of follows up on what you said. I definitely agree with the whole concept of price stability; I think we ought to state it as a goal and it ought to be a real goal. I really do think there's something sort of even moral about it--that basically people ought to be able to expect some stability in the purchasing power of the currency and not have to conduct a lot of high search costs associated with the anticipation of

prices. But having said all that, there are a couple of technical things I wanted to ask. First, even if one agrees with that, I still have trouble deciding on a definition of price stability. I think what we came up with in association with the language in the Neal bill was reasonably acceptable, because I honestly do have trouble with trying to say it's the level of the CPI, or the level of the PPI, or the deflator. There are so many difficulties associated with pinning it to any particular strict quantitative measure that I'm not sure it's realistic. So, it seems the definition of price stability has to have some flexibility associated with it within a narrow range. Now, I don't know exactly how to do it, but I think if we agree on price stability we really ought to spend a lot of time on how we want to define it. Secondly, I think it is important to distinguish the benefits between stabilizing the inflation rate and stabilizing at some concept of price stability. In theory, I think if you assume that people could always anticipate inflation growing at a specific rate I'm not sure the cost of pegging the inflation rate is that much greater than the cost of stabilizing the price level. But I don't believe you can do that this way; I'm not sure you could stabilize the inflation rate. But the fact is that if people could always be assured that prices were going to grow at 4 percent, they could take that into account just like a stable price level. The question I have is: Are relative prices somehow better behaved in a stable price level environment than they are in a stable inflation rate environment? I don't know; I'm asking. Is there a reason empirically or theoretically to believe that relative prices of goods and services are more predictable in a price level stability environment versus an inflation rate stability environment?

CHAIRMAN GREENSPAN. Let me stop you right there. The general question that you raised is really the next topic that we will address after coffee. So, let's take a 15 minute break and [return].

[Coffee break]

CHAIRMAN GREENSPAN. I'd like to put on the table now some specific questions relating to our [unintelligible]. Actually, we may want to combine a couple of them. I'll just read them and put them out on the table as an extension of what we have been doing: Do the Committee members believe that there are significant advantages in targeting stability in the general price level as opposed to seeking to establish a steady low rate of inflation? This has come up several times but has not been fully addressed. Combining with that: Is a precise timetable for moving to the ultimate objective important either as a self discipline or for expectational reasons or would it be sufficient simply to focus on maintaining progress in the disinflationary direction? These are essentially the questions that Governor Kelley raised early on and they really are quite relevant to how we move from our general analytical view of the immediate period to something somewhat more closely related to policy initiatives. Who would like to start us off?

VICE CHAIRMAN CORRIGAN. Would you repeat the first question as you stated it?

CHAIRMAN GREENSPAN. Do the Committee members believe that there are significant advantages in targeting stability in the general price level as opposed to seeking to establish a steady low rate of

inflation? That is, are we looking for zero inflation or are we willing to accept, say, 4-1/2 percent?

MR. JOHNSON. Let me just repeat the last question I left on the table, which I think relates directly to your question about what are the benefits of an inflation rate target versus a price level stability target. I was talking to Bob Parry during the break and raised another question, which is: If you have an exogenous shock, a supply shock that changed the level of prices either up or down--it doesn't matter which way you look at it, I guess--would you want to go back to the old level or would you want simply to move forward in terms of stabilizing the new shock level? And what are the costs and benefits of that? But I wanted an answer to that question I had about relative prices.

MR. GREENSPAN. Manley, if I might, I'd just say that I wonder whether that's really an answerable question without knowing the form of the shock. Clearly, it's the type of thing that we always address when we see--

MR. JOHNSON. What do you mean?

CHAIRMAN GREENSPAN. Well, for example, it makes a big difference when what we're dealing with is a \$20 oil shock or a \$3 oil shock, or a--

MR. JOHNSON. Let's say a big shock.

CHAIRMAN GREENSPAN. Yes. What I'm trying to get at is that I'm not sure that you can answer that in the abstract. Can you?

MR. JOHNSON. Well, yes. I would think so.

CHAIRMAN GREENSPAN. Well, let's find out if somebody can.

MR. STOCKTON. There is some empirical evidence relative to that point that there is indeed a correlation between the variability of relative prices and the level of inflation. Most of that correlation can be explained not by inflation causing relative prices to vary a lot, but by the fact that there have been episodes when relative prices have changed a lot and that has been associated with either accommodative policy to those shocks or just a significant and persistent effect on inflation for some short-run period of time. But there is some evidence that there is causality from inflation to relative price variability as well. So there's more noise in the prices the higher the rate of inflation. There is also some weak evidence suggesting that the variance of the inflation rate is associated with the level of inflation, meaning that you have more variability to overall inflation rates at 4 percent than you would at zero. But that evidence is weak, particularly if you [confine] yourself to industrial economies. There have been some countries that have run relatively high rates of inflation but it hasn't been extremely variable and other countries that have had low rates of inflation but it has been somewhat more variable. So I think there's some weak evidence in both those cases that that sort of variability and uncertainty is associated with inflation, but it's not strong.

MR. JOHNSON. What about the shock?

MR. HOOPER. In terms of what the models might suggest there, for adaptive expectations models, backward-looking models, the oil price shock will have an impact on the price level for a time. And this could work into the wage/price dynamics and have an inflationary effect. Now, if you had a system where zero inflation was expected so that a relative price shock was more forward looking, the inflationary effects generally would be small.

MR. PARRY. The concern I have with having an inflation rate objective of, say, 1 percent, for example, is that if you do have an exogenous shock and it is fairly substantial and if these exogenous shocks over time are not random, I think you probably would look back over a period of time--say, 10 years--and find that you had an actual inflation experience that was quite different from what you wanted, which was the 1 percent. It seems to me it is much safer and more difficult at least to try to maintain price level stability.

MR. GREENSPAN. Still on the table are the questions that I put on plus Manley's addition.

MR. PARRY. Well, on the second question as to whether a specific timetable is necessary, I think we would want to get enhanced credibility and I would assume that that would be a component of it. But we do [need to] set off our objectives over some time frame that people consider [relevant]. I wouldn't think 10 years would be one; perhaps we would even have some pattern of achievement over, say, a 5-year period.

CHAIRMAN GREENSPAN. Governor LaWare.

MR. LAWARE. I have been repeatedly shocked, or I guess dismayed, by the level of nonchalance evidenced by some of my colleagues in my previous incarnation on how they felt about the current level of inflation. We have sat here at the Federal Advisory Council meetings and talked about the economy and almost had to drag out of them some level of concern about inflation. That puzzles me. I'm not sure whether it is because so much more of our economy is indexed today than it was perhaps 10 or 15 years ago or because we have been through a period in the late '70s and early '80s of high inflation and somehow survived and, therefore, like a battle-scarred soldier, the second time over the top is not quite as fearsome as the first time. But it does bother me. In specific comment on the question, I'm bothered by the definition. If zero means no increase in prices not adjusted for technology or quality then I think zero is an unacceptable target. On the other hand, a stable low rate of inflation bothers me because I think that any level of inflation, as long as it is perceived as inflation by the public, contributes to the low rate of savings that we have. You see an exaggeration of it in the Soviet Union where people convert rubles to goods and there's a certain amount of buy-now attitude because next year the price is going to be that much higher. I think that's an unhealthy kind of environment. So, I would be willing to try to develop a policy that would lead us to a level of price increase on an annual basis that reflected, in some sense, the real value added in that price increase. As far as setting visible targets and time frames for achieving those targets, I go back to the comment that I made out of turn earlier, and I apologize for that, which was that if we set a target up and then don't get it--. If Babe Ruth had hit that home run in the 1932 World

Series, whether he pointed to the center field stands or not wouldn't have made any difference. But, [after pointing to the stands], if he hadn't hit it he'd have been seen as a fool.

CHAIRMAN GREENSPAN. No, if he hadn't hit it, he never would have been seen as the ball game's--

MR. LAWARE. But having pointed, I think we run the distinct danger of [losing] credibility as well as confidence and then we get into the position, politically, where we as an institution become much more vulnerable. Having said all that, I think that we are in a terribly difficult position. I go back to what Jerry Corrigan said earlier: that we are no longer dealing with a set of tools in terms of monetary policy that can have as much of an impact on the economy as they once did, because we are so surrounded by external forces like irresponsible fiscal policies and the fact that we are operating in global markets and a global economy. So it is a very tough menu that we've set out for ourselves. I'm reluctant to give definitive targets within time frames. I'm also reluctant to try to go for something called "zero" without having a better definition of what that really means.

CHAIRMAN GREENSPAN. Vice Chairman.

VICE CHAIRMAN CORRIGAN. I was thinking [you meant Manley].

CHAIRMAN GREENSPAN. Wrong Committee.

VICE CHAIRMAN CORRIGAN. I have been thinking a lot about the two questions that you have raised. I have a loose idea rolling around in my head, and I'm not even sure I like it, but let me throw it out anyway. The idea would be that the stated policy of the Committee would be couched in terms of a goal of price behavior that would be broadly compatible with what we had, say, in the '50s and early '60s. In other words, we wouldn't get hung up with one [indicator such as the] CPI or deflator, but we'd state a goal in terms of trying to return to a pattern that had the characteristics of that [earlier period] and we could say that we were going to try to achieve that in the time frame of the mid-'90s. So, it would not be all that specific in terms of a particular price index and it would allow for some wiggle for shocks. It certainly would not be time specific but it would be [unintelligible], Mr. Chairman, as kind of an answer to both of your questions.

But I do want to go back to what I was trying to say before, in part because Mr. [Parry] didn't understand me but Mr. [Prell] did, just so there is no misunderstanding--or hopefully, none. Even if we stated a goal in a way that had some give in it but was certainly a commitment that I think would have some credibility gains to it, I still think that, based on what we know and what we have experienced, the costs of achieving even that goal are going to be large. [They might not be] precisely as shown on Mike's page 14, line 1, obviously; I don't know--nobody knows. But I think it's prudent to have in mind that they might be. Then the question becomes: What can be done that works in the direction of reducing those costs? Again, Bob, I didn't mean to suggest that credibility was worth zip. But I don't think it's prudent for this institution in the political world in which we live to bet the ranch on that because if we're wrong we've got a heck

of a problem on our hands. So, if we're going to do this, Mr. Chairman, I think we have to be very mindful of the need one way or another to try and find--or encourage others to find--policies outside of monetary policy that would complement achieving that goal in the least costly way possible, recognizing that under the best of circumstances the costs are not immaterial.

CHAIRMAN GREENSPAN. President Melzer.

MR. MELZER. On the first question on stability in the price level or a steady low rate, in theory I think stability in the price level is the right answer. Practically speaking, if we could achieve a steady low rate of inflation, I think it would be a heck of a lot better than what we've seen for many years. I think it's important in looking at the price level to look at it over long periods of time. I wouldn't feel that if we picked the price level and we had a little inflation that that should be immediately reversed with deflation. But that's, of course, implicit in that. That's why as a practical matter I think I would find a steady low rate of inflation acceptable. On the second point, if we don't have a timetable I think that we're too easily [unintelligible]. I think we need it as a matter of self discipline and I think it could have positive effects on expectations. But I don't object to what Jerry has suggested in terms of a general point in time when we would like to arrive there. I have a difficult time in our trying to set out a specific path of how we are to get there because that runs into the risk of what John was saying--an embarrassment along the way and all of a sudden we will have been derailed altogether. My general point would be--I've said this at earlier meetings and I've heard some other people say it today--that I worry about whether we really have the public and political support to do this now. I don't think there's a broad understanding outside of this room--and John your comments would reflect that--of the costs of a continuing, say, 4-1/2 percent rate of [inflation].

CHAIRMAN GREENSPAN. Let's hold it; that's our next question.

MR. MELZER. Okay. Well, I won't lecture on that. But my only point is that, even though I support this direction and I support some kind of a timetable on it as opposed to [accepting] the general [unintelligible], I think we have to recognize that our timing is not great right now. This is not a good time to be out beating the drum on zero inflation because we don't have the support and we run the risk of getting derailed in the short run.

CHAIRMAN GREENSPAN. Tom, I think the reason why it is important now is that if we are going in the other direction we very well better know what the costs are to the ultimate goal [unintelligible]. In other words, I frankly have learned a great deal from this exercise by knowing what type of space we have on the other side if we are forced to go in that direction.

MR. MELZER. What I'm saying, Alan--I'm not tending in the other direction--is that we have to be politically smart about how we unveil this thing.

CHAIRMAN GREENSPAN. Oh, I don't disagree with that. I'm saying that this is the right time to have this conversation.

MR. MELZER. Yes.

CHAIRMAN GREENSPAN. It's probably the wrong time to go out and tell the public what we talked about.

MR. MELZER. That's exactly what I'm saying.

CHAIRMAN GREENSPAN. I'm sorry I didn't intend to interrupt you. Are you--

MR. MELZER. No, you made my point much better than I could.

CHAIRMAN GREENSPAN. Dick.

MR. SYRON. Mr. Chairman, I will comment on the two specifics of your question but, in terms of looking at the cost/benefits of this issue, I think Jerry's point is well taken: We don't know on that table. I think it's extraordinarily useful but [unintelligible] what precisely the sacrifice ratio would be. There has been a lot of discussion of the cost/benefits in present value terms. I think it could be interesting, possibly, to do an exercise to see what sort of sacrifice ratio you'd have to have so we'd know how much weight to put on the credibility issue to break even [unintelligible] that works. Because we're still operating in, at least--

CHAIRMAN GREENSPAN. How many people we throw out of work is acceptable publicly?

MR. SYRON. No, I'm not saying publicly. Actually, what I'm saying is: How many people we throw out of work now will be made up for in present value terms by the [employment] gains we'll have later on?

MS. SEGER. As long as they're all in Massachusetts!

MR. SYRON. It's getting to be that way now.

MR. BLACK. That's where a lot of them are.

CHAIRMAN GREENSPAN. The real difficulty is that we cannot talk in terms of cost/benefits on the unemployment rate. It is debt that we--

MR. SYRON. You can talk in terms of GNP, though.

CHAIRMAN GREENSPAN. You can that, yes.

MR. SYRON. That's what I was thinking.

CHAIRMAN GREENSPAN. You can, yes.

MR. SYRON. I was thinking of present value GNP. But to get to your particular questions, I would find targeting something like a steady low rate of inflation acceptable. I find it consistent with the statements that you've made in the past about the level; the kind of numbers that you have used are, in fact, the kind of numbers that Jerry used. I think it's consistent with your statement that that level really would not seriously affect economic decisionmaking. As

far as the timetable goes, I think it's hard to say yea or nay. My notes on other people's comments around this table suggest as well that [the feeling] is sort of yes, but not precise. And that's where I would come out, in part because of the concerns that John LaWare expressed. I don't think we get anywhere if we just say we're going to get there but we're not going to tell you by when. I think we have to give something like a two-year band or something, depending on the number that we pick--saying when we want to get there, say, 1994-96 or 1995-97, or something like that.

CHAIRMAN GREENSPAN. Well, what's wrong with the 1990s, as Jerry--

MR. SYRON. I don't think there's anything wrong. I think it has a nice added--

VICE CHAIRMAN CORRIGAN. Again, I don't want to seem like I'm marketing that idea because I'm not sure I believe it myself. But the fact of the matter is that there is almost this mystique about that period in the '50s and early '60s. People kind of look back and think about it and they say: "Hey, wow." So what you're trying to capture is not a statistical phenomenon but almost a kind of state of mind.

MR. LAWARE. Well, we better make sure that we can do it.

VICE CHAIRMAN CORRIGAN. That's the other question that the Chairman won't let us discuss until later.

MR. LAWARE. Yes, I know.

MR. SYRON. Which is the most important.

CHAIRMAN GREENSPAN. President Boehne.

MR. BOEHNE. Well, the theoretically right answers to your questions are that we ought to have zero inflation with a precise timetable. I think those theoretical answers are wrong in practice because we need too much luck beyond our own powers to achieve that. I think we have to be careful here that we don't let perfection become the enemy of improvement. I would be quite happy to see us pursue a goal of disinflation over time and not necessarily in a straight line. And if we ever get to the point where we get that state of mind that we had in the late '50s and early '60s, then I think we could have another conversation around this table to figure out where we're going. I doubt if anyone of us will be here, however, to have that discussion because I think it's fairly far out there. I think we ought not be precise on the timetable because I'm with John: to state a goal and miss it undermines our credibility. I think what people look at is the progress made; and if over time we can make progress on inflation, that's about all that people realistically expect out of us. I'd be happy to leave it at that.

CHAIRMAN GREENSPAN. President Forrestal.

MR. FORRESTAL. I would like to associate myself, first of all, with what John LaWare said about the perception of inflation. I've been bothered by this for a long time; as I've been saying at several meetings, the people I talk to in my District really don't

seem to have much concern about inflation at 4-1/2 percent. As I said earlier, I think they would if it were at 6 or 7 percent. I don't really understand why this is happening. I suspect, John, that in addition to any indexation and so on, that we've had a period of relative prosperity in the country and that the fear is greater of the loss through a recession than from having inflation at 4-1/2 percent. Therein lies our problem, basically.

Now, on the specific questions: I think that zero is an ideal but it's [not] all that practical to attain. So, I would be happy with a relatively low level of inflation; I think the trend line is more important than any actual number. I'd be quite content to go back to that nice period of the '50s and '60s when we had relatively low inflation. On the time frame, it seems to me that we're between a rock and a hard place in some sense. Because if we don't announce some kind of a time frame, our credibility will be affected and people won't believe that we're going to do it. On the other hand, I also agree that if we set a precise target and miss it, our credibility will be hurt. It seems to me that the way out of it is to have an internal target of, say, 5 years, and try to achieve that, but not announce that to the public--but perhaps announce some kind of a range, as was suggested earlier.

CHAIRMAN GREENSPAN. Governor Angell.

MR. ANGELL. Well, I think we've gotten handicapped by the belief that inflation is a monetary phenomenon and that it doesn't make any difference what anyone else does--that the central bank has the power to control the price level and that it's for us to decide. I would strongly prefer for us to control the price level rather than to aim for zero; zero inflation is not a satisfactory target as far as I'm concerned. With zero inflation targeting, I believe that events will occur; and if we always in a sense let those events be positive but never negative, we're going to end up with an inflation rate that's unsatisfactory. So, I want to go beyond that and I want to have some periods in which we have deflation as well as periods in which we have inflation. I believe it's a commitment to a price level that is the most important. If we have a drought and the prices of food and fiber products rise and we say we didn't cause that drought, well, then, what happens when we have more favorable weather than usual? Do you think we're going to let that kind of supply side [shock] show up as favorable? Do you think we're going to say: "Gee, we're going to take the rate of inflation down"? If we are, then of course we're where we ought to be. It just seems to me that the case is so strong for wanting the American people to be able to buy homes at a 5 percent mortgage interest rate. People ought to be able to get a 30-year fixed rate at 5 percent. And the benefit to that, it seems to me, is unusually high. There is a benefit for the Federal Government with its debt; the higher the debt grows as a percentage of GNP the more benefit there is in having low interest rates. The greater our external debt the more benefit there is of having lower interest rates. To me, these benefits are overwhelming and they are so apparent. We are a reserve currency country. And my goodness we have seigniorage gains. If the world uses dollars for payments, that costs us zero interest rates. It's just very convenient to have the reserve currency position. And we're not competing with the average country in the world; we're competing with the best competitors in that regard.

Finally, it seems to me that there's basic integrity involved. I just don't understand why anyone would want to say they wanted to participate in a lack of integrity, meaning we're [just] making promises. It's our job to make promises in regard to the purchasing power of U.S. dollars. To me it's a moral question of integrity. And I cannot participate--I cannot serve on a Board and an FOMC that doesn't have this integrity. Excuse me for being so extreme! But I don't know how else to deal with it. Now, as for a specific timetable, yes. I'm willing to go slow and do it by 1995. And I believe we ought to tell people we're going to do it because I believe the costs of doing it are lower if we tell them. Excuse me for being so one-sided on this.

CHAIRMAN GREENSPAN. Angell-esque.

MR. HOSKINS. You feel strongly about that Wayne!

CHAIRMAN GREENSPAN. Bob Black.

MR. BLACK. Mr. Chairman, I'm sort of on the side of the Angells in this!

MR. KELLEY. [I knew someone was] going to say that!

MR. BLACK. Well, I shouldn't have said it, I guess. It looks to me like the first question breaks down into two points: one is whether we ought to seek a zero rate of inflation or a steady low rate; the second is whether the Fed should target a zero rate of inflation or a stable price level. And there are a lot of costs. Don mentioned a while ago shoe leather costs in trying to minimize one's balances because of a rise in nominal rates and interactions with the tax code. When you have inflation of any kind, even a low level, you have all these nonsocial institutions that rise up and use resources to help you beat inflation. So, clearly, I think what we ought to do is to aim for a zero rate. Governor LaWare raised some interesting questions about this because he was saying, I think, that the existing indexes don't capture all the improvements in quality. That is certainly true. And, therefore, I was glad to see that you got the Neal Subcommittee to adopt your definition of inflation, which is much less specific in that we don't have inflation when it no longer affects the decisions of the decisionmakers.

Now, with regard to the second part of the question--the price level at which we ought to aim, or the zero inflation rate--I think we ought to aim at a particular price index, as I think Governor Angell was saying. Otherwise, I think we're apt to get shocks of all sorts [that induce] deviations from that zero rate. In effect, that's where the political pressures are going to arise. So, unless we undo that if it's an upward pressure or undo it if it's a downward pressure and go back to our original target, then I think we're going to have price level drift that is not unlike the base drift that we had when we targeted the monetary aggregates.

MR. JOHNSON. Why is there a reason, though, to believe that those kinds of shocks will be different than random--or biased to one direction?

MR. BLACK. Well, I just think that our whole economic system has a bias in favor of inflation. I even think that the Federal Reserve has some bias in favor of inflation.

MR. JOHNSON. But I think we're talking consensus here. Theoretically, [if] we pursued a zero inflation rate target and we were not influenced by the politics that were coming later or whatever, why would we expect those shocks to be anything but random?

MR. BLACK. In that kind of world I think that's what you would expect; but in a political world I don't think they would [be random]. The answer really, Manley, is that they would be purely random, but it's the political issue that enters in.

CHAIRMAN GREENSPAN. I think the best way to answer that is to count all of the letters that I have received in the last two years complaining that interest rates are too low.

MR. BLACK. That expresses it; I wish I'd thought of that.

CHAIRMAN GREENSPAN. The answer is zero.

MR. JOHNSON. Well, you haven't talked to my mother-in-law! They're way too low for her.

MR. KELLEY. Absolutely.

MR. BLACK. Well, my mother-in-law is an exception to a lot of other--

CHAIRMAN GREENSPAN. Let's put it this way: they don't write me.

MR. PARRY. Do you think the probability of positive energy price shocks is the same as the probability of negative price shocks?

MR. JOHNSON. Well, I don't know what the probability is. I can't think of any reason why the probabilities of negative or positive shocks would be any different.

MR. PARRY. In energy?

MR. JOHNSON. Well, I honestly believe, personally, that there's a higher probability of a downward price shock in energy than an upward one right now.

MR. KELLEY. You're right.

MR. BLACK. Well, let me answer the second question. I got us off track I can see. As to the timetable, I would come out right where Governor Angell did on that; and that's where you came out, Mr. Chairman, in your testimony before the Neal Subcommittee. I think in the interest of credibility we need to pin ourselves down to get there. If all these simulations we did are in any sense right, you have less painful results when expectations are forward-looking rather than based entirely on past experience. So I would like to see that tied down to a 5-year period, realizing that if we don't hit it that

we would have a few problems on that. But I think if we had the target we'd be more likely to hit it than if we didn't.

CHAIRMAN GREENSPAN. President Keehn.

MR. KEEHN. It seems to me that the Federal Open Market Committee is a policymaking body and that we really can't make monetary policy decisions in a vacuum. It's awfully awkward to be slavish to any mechanistic goal regardless of the events or the environment around us because the environment is constantly changing. And I think decisions have to take that into account. By definition, certainly less inflation is best. But there are these measurement issues, which Governor LaWare has brought up, and I think there are others as well. Indeed, if we were to aim at absolute zero inflation that, in effect, might very well be destabilizing for parts of the economy. So it seems to me that a more realistic goal is a steady but low level of inflation. Really, if the level of inflation is moving down and we are continuing to make progress, that's okay. But if it's moving up that's not all right, and I would expect us as a Committee to react to that. With regard to the timing question, for the same reasons it seems to me that it would be very awkward to be precise. Again, if we are making progress that would be the desirable objective. But because there are so many events out there over which we have absolutely no control but that could have an impact on inflation, if we were to be precise about a time I think we'd be put into a corner and have an economy that we really were not able to control.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. On the timetable question, I think we can establish a relatively specific timetable because I think we have to provide more rather than less. In other words, I would suggest that if we wanted to do that--say, pick 1995 or whatever in the middle of the decade--we should also explain what else we expect to happen. What are the accompanying developments? What are we really looking at as best we can judge the situation? That includes being specific about such things as our not anticipating anything extraordinary happening to energy prices or to the dollar or whatever. I don't think it's credible to simply say the target is zero inflation by 1995 and let it go at that. It seems to me that we should provide more information, and then as things unfold we're in a good position to explain why we either are or are not achieving the path we set for ourselves, or why we have to make modifications because of events we can't control. I don't think that's terribly different, frankly, from what we're doing right now with the Humphrey-Hawkins testimony. We're simply going further. There's going to be a lot of uncertainty, but that's always the case. And if we're providing more information so that people can understand what our true objective is, and the circumstances surrounding that objective, and the conditioning assumptions and so forth--if we put it in those terms--I think we can do it. But I think to just throw it out there would get us in trouble from a number of different perspectives. So, I wouldn't just establish a zero inflation objective by some time period. As far as the question of the price level or the rate of inflation: yes, theoretically, I think we want a steady price level. But in practice I'll take Ed Boehne's suggestion: let's get the rate of inflation down and then we'll worry about what we do next after that.

CHAIRMAN GREENSPAN. Bob Boykin.

MR. BOYKIN. On the first question, targeting a stable inflation level would bother me because that implies we can come up with a specific number and I don't think we have any historical basis for assuming that we could maintain that particular number. It seems to me we would have more explaining to do using the zero inflation. In my mind, at least, that implies the definition that's already been advanced as far as inflation not entering into the business decision. It seems to me that we give the Committee a little more latitude by taking into account facts and circumstances as they are developing at any particular time. In my mind we do not get a locked-in mentality; that might not be the appropriate thing to do. So I would favor the concept of moving toward zero inflation with the understanding of what that really meant. I also think that a timetable is important. It's important to give us credibility and it's also important on the other side of it to give us a lack of credibility. It seems to me that the idea Jerry was talking about--saying the mid-'90s or something like that--would put us in the position of being able to take into account what was actually going on without doing any serious damage. But direction is important. And, given the inflationary [bias] both in the economy and probably within the FOMC, at least on an historical basis, it appears that if we don't formulate good policies to try to get to where inflation is not a factor in making business decisions our decisions are going to lead us inadvertently toward more inflation.

CHAIRMAN GREENSPAN. President Guffey.

MR. GUFFEY. Thank you, Mr. Chairman. In response to your specific questions, my desire would be to achieve some stability in the general price level provided that that means [stability] at a low inflation rate. Just to stabilize a general price level could be at any level. If we were to set upon that course today, I'd assume that what we would do is maintain price level stability between 4 and 5 percent, which would be acceptable to me at least. With regard to the timetable, I like the idea of some statement much like Jerry Corrigan has set forth--that is, the mid-1990s. As you testify twice a year in Humphrey-Hawkins, for example, and many other times that you have to make public statements, I think you could address those issues that either bring us closer to that goal of price stability in the mid-1990s or away from it. I think it's going to be difficult, if not impossible, to achieve price stability at some level absent some help from the fiscal side. And I think time after time you have to beat that drum. This gives you the opportunity to do that. There is one other issue that keeps coming to mind and that is whether or not we have the authority--and I'm talking about legal authority, implicit or otherwise--to adopt a goal of price stability, price stability being zero inflation. We have a number of pieces of legislation that tell us what our goals should be. And they number as many as 10 if you get all the pieces of legislation together. So, if we were to say that as of now we're going to set upon the course of trying to achieve price stability, meaning zero inflation or thereabouts, by the mid-1990s, and as a result--whether by our making it or not--we got into a recession, I think we'd be challenged as to whether or not our goal was legal. We can say internally all we want about price stability being at or near zero, but when we get in public I think you're talking about something else.

CHAIRMAN GREENSPAN. Very interesting point.

MR. KOHN. Mr. Chairman, I don't have the wording in front of me, but Section 2(A) of the Federal Reserve Act says in the first sentence, before you get to the Humphrey-Hawkins stuff, something about the growth of money and credit at rates consistent with the expansion of the productive capacity of the economy. And I think you could interpret that, with a view to promoting price stability [unintelligible]--

CHAIRMAN GREENSPAN. If you go about three or four sentences later it probably contradicts that.

MR. KOHN. Not quite. Other parts of the Humphrey-Hawkins Act may, but the part in the Federal Reserve Act I'm not sure does.

CHAIRMAN GREENSPAN. It says good; do it well. There was one issue I meant to raise with respect to the question of whether or not a stable inflation rate is different from zero or thereabouts. In our analysis of causes of changes in stock prices and other calculations we make which relate to the real cost of capital: What is the impact on that variable of the level of inflation? My recollection is that there's a fairly significant relationship, implying that the higher the rate of inflation the higher the risk premiums associated with the real cost of capital. Another way of putting it is that the higher the rate of inflation over a long period of time, other things equal, the higher is the real cost of capital. I don't remember how robust that conclusion is, but it was not bad as I recall.

MR. JOHNSON. I believe that is true if--

CHAIRMAN GREENSPAN. This was just strictly an historical correlation. You can pick up some of the variation in the real cost of capital from [unintelligible]. Lee Hoskins.

MR. HOSKINS. I probably should start with a disclaimer that Wayne and I didn't get together and have a coordinated statement here. With that in place, let me start out by saying that we are a central bank and if we don't speak out for price stability I don't know who is going to do it. The integrity of the currency, whether it's a reserve currency or whether it's our own domestic currency, seems to me to be an extremely important matter. If you want to say it's a moral matter, I'm comfortable with that as well. There was a Governor here, Governor Wallich, who at one point in time made an argument, if I can paraphrase him, that a society that allows for inflation is a society that lies to its people. I think he made that statement, and some of you may remember it, in this Board Room. And I don't think that's [in]appropriate at all. One point is that if the public isn't comfortable with lower rates of inflation, then it's incumbent upon us to do the educating because no one else is going to do that. With respect to this idea of zero inflation and some definitional problems, I admit that they are there. I think Governor LaWare said it very well: that there may be improvements in quality that we need to capture. But saying that implies that we know what those might be--1 or 2 percent it seems to be. We could work to adjust the price indexes to take account of that just as well as saying that we can allow 1 or 2 percent inflation. The zero inflation concept, at least as I understand it, really is tied to a price level. Without the

price level tie you have no anchor. I think that's the same thing Governor Angell was saying. It isn't mechanistic; it doesn't say that we have to react quarter-by-quarter or even year-by-year to a particular set of circumstances that cause inflation to rise. What it does say is that over time--and I'm comfortable with your definition in the Neal Amendment--that the price level really shouldn't rise. That implies some declines in the price level as well as rises. And that gets at your question about shocks; I would expect them to be on both sides. Over periods of 5 or 10 years under a zero inflation policy, which is really a price level policy, I would expect that we would have a stable price level.

MR. JOHNSON. But you're saying we wouldn't aggressively ease or tighten if there were supply shocks?

MR. HOSKINS. I think the Chairman answered that in the sense that we have to decide what kind of shock it is. If it is a drought, I wouldn't do anything. I don't see how anything would help. We expect offsetting results on the other side of that. With an oil price shock, it depends on how countries respond to it. That is, if they accommodate it--and this Committee at the point in time of the initial oil price shock, if I remember correctly, decided to partially accommodate it--in order to lessen--

MR. JOHNSON. I'm thinking of the negative type shock like debt--anything that would shock the level down. I think you've got to be willing to say that.

MR. HOSKINS. Yes.

MR. JOHNSON. Okay, so you'd aggressively ease in that case?

MR. ANGELL. I would respond to a drought.

CHAIRMAN GREENSPAN. Well, how would you respond to a stock market decrease?

MR. ANGELL. I wouldn't respond by providing the liquidity to make certain that that event didn't cause the demand for money to drive up rates.

CHAIRMAN GREENSPAN. In other words, you would supply only that much which you feel [unintelligible] and the demand for money growth would drive up--

MR. ANGELL. Well, that's the first thing I'd do--supply. Then I would decide whether or not that financial event was going to precipitate any--

MR. JOHNSON. Deflationary impact.

MR. ANGELL. --any deflationary impact and I'd watch commodity prices to see whether that was the case or not.

MR. HOSKINS. Let me finish off, then. I would see us making the same kinds of decisions and struggling with the same problems that we struggle with now, except we would have a framework or anchor point that we were working against out there. That's the advantage that I

see, though. I don't see this as being an automatic process. There are uncertainties and judgments that we're all going to have to engage in but we would have a frame of reference. And all I meant by zero inflation policy was essentially to anchor ourselves to a price level out there some place in the future. The last point: I generally believe that people operate more efficiently when they have more information, which is the point that Gary Stern raised. I think we ought to be perfectly candid and tell people what we think the consequences of our actions are going to be; and I'd indicate that there are circumstances in which we could get thrown off our path temporarily, but that we're after this objective over time. So to answer your questions: Yes, I would prefer the price stability objective; and I think the time frame is important because it is a way of providing information to people. I don't know the magnitude of that. It may be closer to where Jerry thinks it is--not worth much, but something--or closer to where I think it might be, which is worth more. The third question that you raised was: Is there something different about a 4 percent rate as opposed to a zero rate? I think there's a qualitative difference because I'm anchoring it to the price level. If you're taking 4 percent, or even a low rate of 2 percent, you're arguing that there's some kind of trade-off there. And if there's a trade-off there, then why don't we just pick 4 percent? Or maybe a circumstance will come along where 6 percent looks good. I don't think that's an appropriate thing to be building into people's planning horizons. I've said my piece.

CHAIRMAN GREENSPAN. Governor Kelley.

MR. KELLEY. Mr. Chairman, I apologize for jumping the gun a little before the break; I didn't know where you were going with the second half of the afternoon. But let me add another point. It seems to me that if we set a specific time objective two things are going to follow--the second from the first. If we think we're getting too much media attention and Congressional attention now on the subject of monetary policy, we "ain't seen nothing yet!" If we announce a firm policy and proceed to put things stringently in force toward that, I think we're going to have people looking over our shoulder like we never dreamed of before. Indeed, we're starting to look over our own shoulder, which leads to my second point. And that is, I think in the interest of our own credibility that we would run a risk--it may be even more than a risk, it would almost be inevitable I think--that we would have to overshoot. We would have to set policies that would overshoot making that goal, and we would run a very severe risk if we did that. That leads me to say that, as a practical matter, it seems to me that we would adopt a very tight specific time frame only if we intended to be absolutely single-minded about meeting it. That would mean meeting it--whatever shocks might show up, whatever uncertainties there may be in the information that's available to us, and whether they should happen to have severe consequences--regardless of what other national priorities might come along that would have an impact upon by monetary policy. And it's hard, indeed impossible, to foresee all those things. When I spoke in terms of getting the trend in the right direction, Jerry, I'd be perfectly comfortable with a definition of getting a trend in the right direction as: having a properly and carefully defined but very general definition of price stability by the mid-'90s. That's a level of specificity that I'd be happy to live with as being a way to move toward getting trends in the right direction and sustaining them.

CHAIRMAN GREENSPAN. Governor Seger.

MS. SEGER. I just realized as I sat here how old I'm getting because I took the first economic courses I ever took in the '50s, before any of you were born! But I will tell you what they were teaching then--especially Manley, pardon me.

MR. JOHNSON. Hey, I was born before the '50s!

CHAIRMAN GREENSPAN. 1850?

MS. SEGER. That's what I was referring to--1850! Seriously, first of all, in the '50s we were taught that deficit spending was not [only] okay but it was great because we had to prop up this weak kind of economy. Secondly, some of the gurus of the day--people like Samuelson and Slichter--were saying that you needed to have inflation of 2 to 3 percent per year to assure prosperity. Again, none of you remember this but you can go down to the library and pull out the books and check to see if I'm right.

CHAIRMAN GREENSPAN. I remember.

MR. BLACK. I remember, too.

MS. SEGER. The other persons from [unintelligible]! Anyway, I think it does state something about how the pendulum has swung. Frankly, as a conservative, I'm delighted to see this because I do believe in price stability. I also remember the early 1960s; in fact, I worked in Washington in the early '60s when we got those quite good results with the inflation measures. But the interesting thing, as I recall that period, was that it wasn't really planned. It was like a eureka experience. We got it and said: "Oh gee, isn't this nice!" We had this good record thrust upon us, which we then of course lost in the mid-'60s with the escalation of the Vietnam War.

MR. JOHNSON. But the country was on the Bretton Woods standard; there was a law in place.

MS. SEGER. Yes, but--

VICE CHAIRMAN CORRIGAN. Yes, we have an old [unintelligible] on that stuff.

MR. JOHNSON. But I'm saying those rules of the Bretton Woods arrangement were followed and there was a discipline in place.

MS. SEGER. Yes, but we had better inflation performance in the first half of the '60s than we had in the late '50s. Anyhow, my punch line in all this is that I think it's very good to state as a general objective that we want price stability. And by price stability I mean just be that vague; don't say whether we want to cast the CPI for October in concrete and make that the base or whether we want to do something else. Set a general target and move with our policies in that direction but without specific numerical targets because, as several people around the table have said, we're going to have this test every single week or every single month. Even if we're making general progress, to the extent that we miss a specific target, the financial markets particularly are going to pick this up and run

with it and conclude that we're complete failures, whereas in fact we might be batting .800 instead of 1,000, which in most ball games isn't bad. So, I would be opposed to setting specific targets or selecting specific indicators of inflation because I think it would be very counterproductive. As to one of your points, Lee, about saying that we're going to impose price level stability even though maybe most people don't care about price level stability, these are value judgments. And if we get too far out of line with what the people in this country want, it's going to be like the government of East Germany and you're going to be put out of office.

MR. HOSKINS. What I said, Martha, was that I think it's incumbent upon us as central bankers to educate people to the value of stable prices. On this other point that has come up a number of times about our credibility and that we run a big risk of losing it: if I read market yield curves correctly, I don't think we have it to the degree that we might. The markets are not telling us that they believe right now that we want price stability. It seems to me that they are telling us we're going to have 4 or 5 percent inflation.

MS. SEGER. Yes, but America is bigger than financial markets. You know, we sometimes forget that. The people who put governments in place are not all on Wall Street or in investment banking houses, etc. Anyway, it's a very big challenge. And I think we have made progress in going from the '50s when, as I said, it was sort of accepted and even thought desirable to have inflation. So, something that's vague and general, in my judgment, would still make a contribution.

CHAIRMAN GREENSPAN. The last question on this subject has been discussed peripherally. Let's start with Roger's formulation as to whether or not we have a legal basis for doing what has been discussed here in general, on either side of what has developed as the two extremes. That is particularly important, I think, because with fiscal policy fumbling the ball, monetary policy has become the sole stabilizer in the system and that's becoming increasingly visible. With the Dorgan-Hamilton Bill I think successfully fended off, we're now running into what I think is going to be a draft Gonzalez-Tobin Bill where Jim Tobin's views about how we should restructure this Committee are potentially much more dangerous to the institution than Hamilton-Dorgan. I would like just basically to raise the question of how we develop political support to do what it is we perceive is necessary for a stable economy and sound monetary policy. If there were a [law] out there, which legally required us to do something very specific about inflation or the money supply, I suspect we'd all applaud that--meaning, in effect, that we would be required to do something independent of the secondary consequences on the grounds that some other institution or some other policy instrument would pick that up. There is no way that's going to happen, as I'm sure we are all aware. We often have to live with the fact that the Federal Reserve is going to be in the eye of the political system increasingly [unintelligible]. The thing I think we have to confront, rather than get up front and promulgate a policy, is to take a step back and ask ourselves the question: How do we try to develop support for the [type of] policies that we need? Why don't I put that on the table and see if we can clean that up before we go home this evening.

MR. JOHNSON. I'll start it off. Off the top of my head, without having thought this through very much, to me the way you build political support is first--I agree with Lee--that you have to educate. I think it's very important for us in our hearings and our speeches and everything else to take an approach that tries to point out the benefits of what we're trying to achieve and how we interpret those. It would be best if we could come to some consensus and all say the same thing. I'm not sure that's possible. But if we decide on that, we ought to try and coordinate it, because coordinating it would be very important for the public. Secondly, and substantively, in terms of reality in the economy--and for this reason I am somewhat of a gradualist but I don't think a 5-year time frame is unrealistic--I think that we cannot afford to have the public perceive us as choosing the tradeoff of accelerating disinflation at the expense of much higher unemployment. I think it's another matter if the public sees us defending our inflation goals if inflation is accelerating and the economy is weak and we're not perceived as having any good choices. It's one thing to try to fight an acceleration in inflation because the economy is weak; I think the public can take a recession in that environment where, say, external policies have been bad, productivity is very low, prices are accelerating and we're not left with any choice except to let inflation accelerate or to stop it and inflict a recession. But I think it's another matter entirely to force the economy into recessionary conditions to accelerate the improvement in disinflation. I don't think it's a big factor to argue about how fast the economy continues to grow or whether employment growth is a little slower or a little faster, because I think the public generally is not very sophisticated in understanding what's happening when the economy is growing more slowly relative to what otherwise would be the case. But I assure you they're very keen on noticing when more people are unemployed and when people are being laid off. They would be saying: Well, the inflation rate is low and actually coming down, but [the Federal Reserve] is going to accelerate this [decline in inflation] from 4 percent to 1 percent and the cost is going to be higher unemployment. So, my view is that we have to be sensitive to the real economy. We have to be patient enough to pursue our goals consistent with avoiding recession unless inflation accelerates. If inflation starts to accelerate, we don't have any choice. That's the way I see it. Of course, if dividends come with [greater] credibility, then we can get there faster without the potential losses in real output and employment. I think we should state our goal of price stability and I think there is a time frame that's realistic. But I certainly don't think that means--even if we were to say we have a 5-year time frame in which we think we can get to conditions of price stability--that tomorrow the discount rate has to go up 1/2 point. It certainly does mean, though, that we have to set a steady course in getting there and take advantage of the positive dividends and resist the negatives.

CHAIRMAN GREENSPAN. Jerry.

VICE CHAIRMAN CORRIGAN. Well, I think that building the political support for even my softer version of the goal is going to be very, very difficult. My hunch is that if you put the Neal Bill to a vote this afternoon it would be overwhelmingly defeated in both the Senate and the House.

CHAIRMAN GREENSPAN. Did you know that in a survey taken of the American Economic Association it barely got supported?

VICE CHAIRMAN CORRIGAN. No. I think it would be overwhelmingly defeated in both the Senate and the House; I don't think it would even be close. Again, that's why I'm so sensitive to this cost thing. And in terms of the work that Mike and his colleagues did, you could take other very credible economic [scenarios] and get cost calculations that are much more severe than the base case. If you take the DRI model or something like that, why, you're just off the charts. So, you would get this process where people would start doing the arithmetic; they wouldn't do it as well as these guys [on the Board staff] do it, but you don't have to be a genius--people can do the arithmetic. And if you put it in those cold hard terms, I think it's a very, very--

CHAIRMAN GREENSPAN. [Unintelligible] be unemployed.

VICE CHAIRMAN CORRIGAN. I could have a field day with it if I were on the other side of the debate. And that, of course, is one of the reasons why I think we've got to be very careful about how we state this and we've got to be excruciatingly careful about what we claim. I don't by any means want to belabor this point, but I do worry a bit that in our collective zeal, and I do mean collective, we've got to be careful not to oversell what can be done and at what cost. Because if we do leave the impression of a cost that turns out to be a low-ball estimate, we're going to get fried. There's just no question about that whatsoever. It's precisely for that reason, Mr. Chairman, that I favor an effort to move us in [the right] direction, in Governor Kelley's terms; and it has to be accompanied by what Lee calls an educational process. The focus there again has to come back to the relevance of other public policy. I obviously agree, Wayne, that the capability is here. But I feel very strongly that the costs are influenced, for example, by fiscal policy. Unfortunately, there is a growing sentiment in this country now that not only says that fiscal policy is kind of out to lunch, but even worse, that we have had all these huge deficits in the '80s and everything is fine. What's the problem? What's the worry? And you don't find that just from the extremes of the economic journalistic profession. That is becoming an acceptable point of view to take in many circles. So, not only do I think it's a hard sell, but at least insofar as the other elements of policy are concerned, we're not--to use your phrase--ahead of the curve, we're behind the curve. Wayne, on your point about our reserve currency, there's nobody that feels more strongly [than I] about the role of United States currency. But can you continue to [unintelligible] reserve currency, even if you do well on inflation, when your external debt is 35 percent of your GNP? Maybe you can, but I think that's really problematical. So, there are a whole lot of things here that fit into this equation about political support. My sense of it is that, to the extent we can make a couple of arguments that are compatible with what we're after and that have inherent political attraction to them, it helps. What are those two arguments that have inherent political attraction to them? The two that I think ring the bells are: first, the internal savings/investment issue. Everybody recognizes that our investment rate in this country stinks. The second and related issue is our external competitiveness. Now, those ring the right bells in political circles. And they can be structured in a way that is quite compatible with a Kelley version or

a Boehne version--whoever's version you want to pick--of moving persistently, consistently, but decisively, in the direction of a continued reduction in the rate of inflation within the kind of soft [time] target that I stated before.

CHAIRMAN GREENSPAN. Dick.

MR. SYRON. Well, Mr. Chairman, I think we're in an extraordinarily difficult and tricky situation here when we try and [unintelligible] up public sentiment. I have been struck, when I give talks and discuss the need for the Federal Reserve to be disciplined and how we are being disciplined in getting inflation down--and I'm talking about business groups, not about community activists--that I haven't had anyone come up to me and complain. It's akin to John's point that inflation is really too high now. What they come up to say is: Why can't you get rates down because my machine tools aren't selling or this isn't happening or that isn't happening. So, I think the only way we're going to get anywhere--and it's a long-term process--is to demonstrate what the cost of inflation is. I think that a lot of the improvement to personal living standards has been driven by increases in the participation rate in the labor force and the norm now being the two-worker family rather than the single-worker family. Because of inflation and other factors, productivity hasn't been rising and real wages haven't been rising. We need to get the saving rate up. We have to show people how they and their children in the future are going to be better off in a low inflation world than they are now. Because they don't understand that now, they are not going to support that. And I think it's very, very important when we try to make this case that we demonstrate as clearly as possible the constraints that the Federal Reserve has on it: what it can and can't do. I'm not disagreeing that we can't get rid of inflation, but at what cost? And it depends upon what other people do. And by that I'm talking about things like the minimum wage, protectionist legislation, different steps that are being taken in medical care costs, all of those things. Someone told me a long time ago that being a shock absorber is not a terribly lasting profession; you get hot and worn out. And I think we need to demonstrate to people how we are really in the shock absorber role and show them the terrible box that we are in.

CHAIRMAN GREENSPAN. Ed Boehne.

MR. BOEHNE. Well, to be very blunt about this, I don't think there is a public or political mandate to go to zero inflation if it means pushing up unemployment and risking a recession. And I think we would do ourselves and the public a disservice if we somehow pretended that achieving this is going to come at a relatively small cost because I think it would get short circuited fairly quickly. I don't think there is any amount of education and persuasion that we can do, barring a hyper-inflation kind of experience like the Germans had, that will ever educate the public to bear even the kinds of costs that we're talking about here. I think there is support out there for resisting accelerating inflation. Realistically, our educational efforts and our statements ought to be aimed at shoring up that support. Now, that means in the process that we have to make, as we have historically, stronger statements against inflation than other parts of society and government; I think that's what a central bank is for. But I think we kid ourselves if we take that rhetoric--every

chairman of the Federal Reserve has had stronger rhetoric against inflation than, in effect, we have been practically able to deliver. I think that's the way life is in a democracy; to try to go for pure and ideal solutions is just not the way democracy works. Democracy involves a lot of compromising and we're compromising here. And I think the best compromise we can cut is to resist accelerating inflation.

CHAIRMAN GREENSPAN. Bob Forrestal.

MR. FORRESTAL. Well, Mr. Chairman, I think the fact that we all pretty much agree that the Neal resolution will not pass sends us a message. The message that it sends to me is that there really is not a political constituency for driving inflation down at any cost. I think that there is a sense, in the Congress and among certain people, that some decline of inflation is probably appropriate. But, as Dick said, when business people and bankers and not just the general public come up to you and say, as people have said to me, the Federal Reserve at this level of inflation has got a fetish about inflation--or to put it the way the British might, that the Federal Reserve is being bloody minded about this whole thing--I think it's going to be very, very difficult to get the general public to support zero inflation. That ought to be our goal but, no matter how much educating we try to do, I don't believe we are ever going to get people to understand the real cost of inflation at these levels. As I said before, if we have much higher rates, then they understand. Also, Jerry, while those arguments are very good about external competition, investment, cost of capital, and so on, when it comes right down to it the Congressman facing his constituent who is unemployed is not going to support us. So, I think what we really have to do is--

VICE CHAIRMAN CORRIGAN. [Unintelligible] I was grasping for straws, Bob.

MR. FORRESTAL. Well, I think a lot of people would certainly agree with those arguments theoretically. But when it comes down to supporting us, a Congressman, say, who has high unemployment in his District--no matter what the appeal of the theoretical argument--is not going to support us under those circumstances. We need to do whatever we can in terms of educating both the Congress and the public at large through talks and that sort of thing. But I think the real key is to bring the inflation rate down in accordance with our goal in a gradual way. We have the goal. The question is: What tactic do we use to get to that goal? If we do it gradually and minimize the cost, I think that will be the most effective way to achieve what we want.

CHAIRMAN GREENSPAN. Tom Melzer.

MR. MELZER. It's a tough argument, but I think it's one we absolutely have to try to make. In a sense, if we're talking about this and if we set this goal--and Wayne I think you touched on this--we may be closer to that goal than we realize. One of the great risks is that we trade away in the short run the progress that has been made in the last two to three years. There have been some very good things said about how we make that argument. Another element of it, in my mind--and I don't mean this in a self-serving way--is that I don't think we convey how we conduct operations properly. There is this

general perception, and we help to perpetuate it, that we move interest rates around. That's very dangerous because it leads people to ask us to do something about it to provide short-term fixes. What's so striking about the analysis that has been done, particularly the earlier versions when we had no mention of interest rates at all, is the realization that inflation is a monetary phenomenon. Obviously, this is not something we're going to get answered at the February meeting. But if we embark on this course, or if we continue on this course, there has to be some gauge of policy that is somehow, I think, aggregates based and gives somewhat heavier weight [to the aggregates] in terms of our public relations. I understand that we set the targets and so forth, but I think the general perception is that we set them but we're very happy to miss them. [We need to convey] some concept of our willingness to compromise in the short run--that we are willing to provide more liquidity to avoid the risk of a recession and to overcome a shock or whatever, but that there are limits on that within the framework of achieving the only longer-term goal that a central bank goal can achieve. I don't have a proposal. I made one in the past and I'm not trying to beat the drum for that. But as we proceed in this direction, I think there has to be something along those lines to put us in a more defensible position. We can't defend it on interest rates; we will get buried every time [we try].

CHAIRMAN GREENSPAN. Lee Hoskins.

MR. HOSKINS. I think the political issue is a troublesome one and it's clearly reflected in the views that people put forth around this table this afternoon. But I look at the problem as one of changing the attitudes. This is a democracy, as Ed Boehne indicated. Democracies learn and they do change. I think it requires us to have character, will, and resolve; it requires us to have some leadership. Five years ago I wouldn't have guessed that we would have an amendment or a joint resolution even proposed for zero inflation. So, things do change over time when people pursue them aggressively. Five years ago the sage advice was to live with the Iron Curtain the way it was and to accept that compromise. We've been surprised, I think, by the rapidity of change that has taken place there. So, I'm not willing to say we can't change things because we don't currently have popular support. It seems to me that it's up to us to make the case for it. I think a lot of good ideas have come out. The Chairman testifies regularly and has stated that price stability is the objective. I do not see inordinate attacks on him by Congress when he's up there. I read the testimony and I just don't see the vehemence. In terms of practical things that we might do, one thing is to expose our ideas directly to Congressional people. I have been called in to meet with a Congressman or two with respect to my views. And while they just don't jump over to my side of the fence at the end of the half-hour meeting, at least they see that we have concerns and that we are not uncaring people and that we may have some worthwhile arguments. I think we can do more to make our case than we have done and I think we ought to do that.

CHAIRMAN GREENSPAN. President Keehn.

MR. KEEHN. Well, I agree with most of the comments, particularly Ed Boehne's comment that we probably don't have a broad constituency out there that supports an absolutely slavish drive toward zero inflation at this specific time. And in a practical

sense, it seems to me that politically it would be very, very difficult to build that. When you talk to people about these kinds of objectives there's a running agreement in an academic sense. But as you begin to think through some of the consequences related to attitudes in the changing political environment it would be difficult to adjust that. That really was why I said earlier that I'd be opposed to a very specific public commitment to zero inflation in a very precise period of time; because if we really meant that, then as people began to work their way through what all that would mean, I think the political thrust to us would be very awkward. As long as we are continuing to make progress and continuing to bring the rate of inflation down--and our policy deliberations and decisions take that pattern--it seems to me that that's the ultimate objective and that we're doing what we should do. And the cost of becoming very mechanistic on this could be very difficult.

CHAIRMAN GREENSPAN. Bob Boykin.

MR. BOYKIN. Well, just to put a little different light on this, I think we're probably selling the American public a little short. I don't want to overplay this. But having been through a depression recently in the Southwest that was more than just the very minimal, all through the very difficult period that we've been through I did not have one business person or anybody pick up the phone and call me and lay the problem at the feet of the Fed. I think there's a little greater understanding out there of the imbalances and a recognition that fiscal policy-- Now, I don't want to minimize the political aspects of it and what a constituency is. As far as the politicians themselves are concerned, I've spent my career running from them and I try not to talk to them; I don't really understand their mentality. But in terms of the individuals who suffered through this, as devastating as it was, I've had people that have totally gone out of business not lay the blame at the feet of the Fed. The only thought I'm trying to get across here, without minimizing the difficulties, is let's not beat up on ourselves too hard. I think there's a little more understanding out there than I'm hearing expressed around here. There are always risks, but given what we see as the objective, I'm not too sure that those risks, on a calculated basis, aren't worth taking.

CHAIRMAN GREENSPAN. John LaWare.

MR. LAWARE. I'm not sure how effective we can be as the principal preachers of this gospel. It seems to me that there's some suspicion of us as being self-serving: that in preaching an anti-inflationary stance and the importance of reducing inflation we sound like we're justifying our own existence in some way. Yet at the same time, I think we all ought to be trying to weave this concept into our public pronouncements when we get an opportunity to do it. Ideally, this would be a lot easier for us, even though it does not smack so much of leadership, if the call were coming from outside--if there were a public spokesman with a great constituency who could say: "Hey, this is a good thing." Lane Kirkland comes to mind but he's kind of an unlikely candidate.

MS. SEGER. He's on the other side of the--

MR. LAWARE. Yes, I understand that. And the Chamber of Commerce is a little suspicious perhaps, in the other direction.

CHAIRMAN GREENSPAN. I think Kirkland would be better than the Chamber is.

MR. LAWARE. In any case, I wonder if we couldn't--along the lines of Lee's concept of meeting with Congressmen--meet with other people and lay the issue out privately as well as publicly that this is a proactive and very responsible kind of stance. I don't think we can just expect it to happen because we want it to happen; we're going to have to work at it. And I think it's a perfectly legitimate thing for us to try to do if we believe that this is in the best interests of the country. If that's what you meant by leadership, then I think that's what we ought to be doing.

MR. HOSKINS. That's what I meant.

CHAIRMAN GREENSPAN. Gary Stern.

MR. STERN. Well, I have only a little to add to all of this. I think Tom Melzer is probably right: We're going to need to shift the focus to some measure or measures of the money supply as we proceed here if we can, both for substantive reasons and also because that has some political advantages as well, as we go forward. My experience is similar to that of some of the others who have commented. Once in a while I'll have a business person come up to me and say that they support the zero inflation objective; but most of the time the sense I get is that they don't have any trouble with 4 and 5 percent inflation and they're more or less content with that.

MR. JOHNSON. Is that what you hear in your board rooms?

MR. STERN. It's mixed in the board.

MR. SYRON. It is mixed.

CHAIRMAN GREENSPAN. Remember that zero inflation means declining profit margins.

MR. STERN. Well, that's what I was going to say. I think part of the motivation behind this is the squeeze on profits. I don't think there's much question about that. Part of it, as somebody already commented, is that we have had 7 years of expansion and improving prosperity, and people--or some people at least--are reasonably content with all of that. The other aspect, which is really the other side of the same coin, is that in our District unemployment rates in almost every state are below the national average and yet the number one political issue out there is still jobs. I've been trying to figure out how you reconcile that. All I can figure out now is that the 1980-82 recession left such an indelible impression on so many people that that is still a big, big issue and people just don't want to tangle with something like that again.

CHAIRMAN GREENSPAN. Wayne.

MR. ANGELL. The Constitution, as you know, does give the Congress the authority to control the money supply and to protect the value thereof--I think that is the phrasing of it. And the Congress decided to delegate that responsibility to us. It seems to me that it's far, far worse for us to be held to task by the Congress for not doing the job that they, in a sense, expect us to do in regard to price level stability. That criticism can take place too. And I would far rather be in a position of saying we were a little too committed to this responsibility than I would to have them criticize us for letting inflation run. Economic growth is stated in the Full Employment Act of '46 and full employment is mentioned in the Humphrey-Hawkins Act. And it just seems to me that if we know the best way to [foster] economic growth is through price level stability, then it's our job to do the best we can on economic growth--which is, of course, to put price level stability first. If you believe that, then I think it's sellable.

Now, I agree with what Manley Johnson said at the beginning when he said it's a question of strategy and timing. Certainly, Manley, when you and I joined this Board we were involved, first of all, in a proposition to grow the money stock more rapidly. For what reason? Well, I think it was because going from 12 percent to 3 percent on the inflation rate unexpectedly produced certain shocks that were threatening to upset the entire financial community. I think third world debt and the commodity producers everywhere--the world was just about ready not to worry. And I think that it did make sense to level off at 3 percent; and in doing so we really slipped back up to 4-1/2 percent. So, now I think it's very logical for us, having done this in the first step, to take the second step. And I think going from 4-1/2 percent to zero is not as tough as going from 12 percent to 3 or 3-1/2 percent or wherever it was. It seems to me if we're going to sell this we won't sell it by talking about trade-offs. You don't sell it by saying: "Oh, we're going to go out and produce a recession and that's exactly what we want to do and we're going to put you in enough pain that everybody will become committed to not raising prices." That's not the way to sell it. We really need to focus on what I call price level targeting; and that's why I like to use commodity prices as a way of saying that we're not trying to create slack. We're not trying to create unemployment; we just recognize that the commodity price level, however measured, has moved up and we have to restrain that move. And I think there's support for doing that. Now, on the fiscal side, I believe the Federal Reserve is more at fault on the federal budget deficit than is the Congress. It was the Federal Reserve with those double-digit inflation rates that caused tax receipts to rise at 16 to 18 percent per year. Why wouldn't the Congress get used to spending at that rate? We're the ones that taught the Congress to spend, and bringing the rate of inflation down, of course, shuts down the receipts and it does impose rather significant burdens. I don't think anyone here would suggest that the Congress doesn't have significant problems. Rather than saying we ought to be [content] and we can't get the inflation rate down, I think we ought to be a little more sympathetic to Congress' problem. Getting the budget deficit down in a period of declining inflation is pretty tough to do. So I think we need to be sympathetic with their goals and we need to admit that we want to make that pain as minimal as possible for the Congress. That's why I don't think we ought to do it as fast as the Volcker Fed succeeded in doing it between 1981 and 1984 when so much progress was made. The way I think

you sell this program is that you sell low interest rates. You say low interest rates are desirable: that's desirable for economic growth; we get more capital formation with low interest rates; and we get an economy in which people can plan for their future. And savings ought to respond. I believe that we have to be somewhat more optimistic than we have been. We can't sit around and tell everybody it's not going to work. If you don't believe it's going to work, well then what are you doing here? What we have to do is to say: "Sure it's going to work, and we're going to make it work." I think it's sellable and I think it's exciting to be out there selling it. Frankly, this is the way I talk to audiences everywhere, as many of you know. And I've yet to find the first person to come up to me after one of those presentations and say: "Oh no, you're wrong; you shouldn't take the inflation rate down." No one says that.

MS. SEGER. Because they know they wouldn't win the debate!

MR. ANGELL. Well, I think it's sellable if we want to sell it.

CHAIRMAN GREENSPAN. Bob Black.

MR. BLACK. Mr. Chairman, I think Governor Angell was right in going back to the Constitution where it says Congress should have the power to coin money and regulate the value thereof. And that has been delegated to us through various forms of legislation. Don Kohn mentioned a while ago that among the objectives that have specifically been spelled out in the existing Acts is to control inflation. I think the best way to make that point is to do precisely what you did before the Neal Subcommittee by saying that this is the best way to get all these other things, which I sincerely believe.

CHAIRMAN GREENSPAN. I think it's true.

MR. BLACK. I do too, absolutely. And that would be the brunt of my argument.

MR. HOSKINS. Nothing wrong with the truth.

MR. KELLEY. When all else fails!

CHAIRMAN GREENSPAN. Any further comments before we close?

MR. JOHNSON. I'd like to make just one brief point that I forgot to mention that was on my mind. In terms of the speed of adjustment, I've already laid out what I consider to be an appropriate strategy. But along with that is the notion that in the past when we have had fairly significant inflation, a lot of debt built up. Of course, a lot of debt was created even in the '80s when inflation was low, which is kind of interesting. But that was especially true during the '70s. I think we cannot force inflation down any faster than the safety net can bear the burden. In a sense, our lender-of-last-resort function is exposed from time to time; if you cause inflation to decelerate so fast that you create a debt bomb, we end up with the whole banking system falling into the safety net or huge debt problems that dramatically expand our lender-of-last-resort function. In fact, it's hard enough to arrange collateral now. And if there's no collateral to take, we're going to be limited to some degree. So I

think we ought to keep in mind--at least if we pursue restraining policies--just what we think we might inherit through the discount window or, in general, our safety net.

CHAIRMAN GREENSPAN. With those words, I think it's time for us to adjourn what has clearly been one of our most interesting meetings--certainly the most interesting meeting I've been at.

MR. KELLEY. Yes sir.

MR. BOEHNE. How would you like to summarize it, Mr. Chairman?

CHAIRMAN GREENSPAN. I think it would be worthwhile in the December meetings to come back to this issue just to review where we stand because I think it gives each of us a view of the philosophical base of our colleagues. I think that's quite useful in these kinds of discussions. So, let's adjourn until tomorrow morning at 9:00 a.m.

[Meeting recessed]

December 19, 1989--Morning Session

CHAIRMAN GREENSPAN. Before we resume our regular business, I would like to raise again a problem that continues to confront this organization with continuous damaging and corrosive effects, and that is the issue of leaks out of this Committee. We have had two extraordinary leaks, and perhaps more, in recent days: one in which John Berry at The Washington Post in late November had the time and content of a telephone conference; previous to that we had The Wall Street Journal knowing about telephone conferences and knowing a number of things that could only have come out of this Committee. I have discussed this subject a number of times but just let me tell you that, as best I can judge from feedback I'm getting from friends of ours, the credibility of this organization is beginning to recede and we're beginning to look like buffoons to some of them. If one readily translates what we heard here yesterday about how the credibility of this institution has major economic policy effects, one cannot fail to realize how important it is for us to have an organization which is not perceived to be discussing all sorts of confidential things to newspapers when we hold up ourselves as being a group that can confer in private. The real problems that conceivably can emerge are not only the ones that have been discussed here on numerous occasions, but I'm getting a little concerned about the free discussions that go on in this group--and yesterday afternoon is a very good example of this. If [our discussions] start to be subject to selective leaks on content, I think we're all going to start to shut down. Frankly, I wouldn't blame anyone in the least. We wouldn't talk about very sensitive subjects. If we cannot be free and forward with our colleagues, then I think the effectiveness of this organization begins to deteriorate to a point where we will not have the ability to do what is required of us to do. I don't know who the leaker is; I suspect it may well be only one person. I don't know whether the leaks are directly to Alan Murray, who has the clearest access, or to John Berry or Paul Blustein. Regardless, it's very destructive to the organization. I hope the person, who I would suspect can hear my voice at this moment, will recognize the type of damage that is being done to this institution. And if it's not the institution that you care about, at least recognize how important this institution is to our country. If we cannot function, the sole major economic policy instrument that this country has will not be able to function. Manley Johnson wants to insert a few words this morning.

MR. JOHNSON. Being one of the members of the FOMC who generally has supported more disclosure--I admit I'm in that camp--I asked Alan to let me say a few words about a certain type of problem about leaks that I do think is serious. I wanted to make an appeal myself. I realize there is a debate going on within the Committee about policy disclosure and I think that's still a [valid] debate. But my big concern about the types of leaks that I've seen is that, along the lines of what Alan mentioned, I think it's very destructive if the confidential deliberations of the Committee end up in the press. If we can't sit here and have a dialogue and be honest and actually say things back and forth across the table to each other in an honest way without worrying about those discussions being disclosed at some point, then I think we have problems. I have been and continue to be generally supportive of the idea of accurate, timely announcements of our policy decisions. But our deliberations and how we get there have to be confidential. The thing that bothered me the

most was back in February of this year when we were deliberating over whether to raise the discount rate and there was a Wall Street Journal story that announced a future FOMC meeting that was coming up in a few days. That just literally announces to the world that we're deliberating over the discount rate and anyone is free to--

CHAIRMAN GREENSPAN. You mean a Board meeting.

MR. JOHNSON. Yes, a Board meeting; sorry, I said an FOMC meeting. But I think we had a conference call scheduled to discuss how we were going to approach this and even that was made public. So, I would like to make an appeal myself on the confidential nature of internal deliberations. And I separate that issue from the whole issue of announcements of policy. We have to preserve the confidentiality of deliberations because otherwise we eventually are going to come in here and read a script and not have a dialogue.

CHAIRMAN GREENSPAN. Any comments gentlemen, ladies?

MR. ANGELL. Mr. Chairman, I'm very pleased that you made the statement that you made, particularly after the discussion we had yesterday, because if any of us were to indicate that we had such a meeting and that we did not come forward with a decision to [seek price level stability], that in itself could have a very significant [impact] on the market. I think that's a particularly delicate subject; and I feel quite certain that the price of gold, for example, would react rather immediately if it were leaked that we talked about going to price level stability and we didn't take action to do it or if it was placed in the worst context.

CHAIRMAN GREENSPAN. Questions?

MR. SYRON. Mr. Chairman, some time ago I think Joe Coyne drafted something that was an agreement among the Committee that none of us would talk to the press seven days before or seven days after a meeting. I wonder if it's not worth revisiting that issue.

CHAIRMAN GREENSPAN. That is, I presume, still part of the agreement promulgated by this Committee in its rules.

MR. COYNE. That was recirculated to the Committee in May of 1988.

CHAIRMAN GREENSPAN. Any further comments? If not, let's get back to our regular agenda. We're now at the point where Mr. Cross can bring us up to date on foreign Desk operations.

MR. CROSS. [Statement--see Appendix.]

CHAIRMAN GREENSPAN. Questions for Mr. Cross? I think Lee was first.

MR. JOHNSON. Okay.

MR. HOSKINS. In regard to your dealings with the Treasury, doesn't the current limit give us a little more leverage with respect to arguing that we shouldn't be intervening?

MR. CROSS. I think the Treasury sees our limits as a reflection of the view of the FOMC toward the whole subject. But if we are seeking to tell the Treasury that we don't want to intervene anymore, I think it has to be done in a direct way.

MR. JOHNSON. I'm not opposed to the [proposed] increase of \$1 billion [in the limit on System holdings of foreign currency balances]. I agree with your point about interest [accruals] but, as you pointed out Sam, this is a particularly sensitive period. And in my opinion, I can't foresee a situation developing where we would want to be selling dollars over this intermeeting period. It could occur, but I don't think there's much doubt that the Japanese are about to move on their discount rate--even though I'm not sure why--for their own domestic purposes. I think it's more political than anything else. But I can't see a situation in which we would want to be selling dollars into this market with the economy moving slowly and the DM and other European currencies strong and probably the yen showing some strength against the dollar. There already have been anticipations--rumors in the market--of a discount rate move, which weakened the dollar/yen rate some yesterday. Even if they move on the discount rate, I'm not sure whether that's going to be enough really to change things permanently or anything like that. Can you foresee a situation, Sam, where we would want to be selling dollars in the intermeeting period? I think it's okay to approve this.

MR. CROSS. As matters now stand, my own view is that there certainly doesn't seem to be any reason to need to sell dollars. We are in the last two weeks of the year and the market tends more or less to close down at that point. An awful lot of the banks stop making markets. They all either have made their profits for the year and want to rest on them and pass out their bonuses or they have their losses that they can't do anything about. The market tends to close down. And for a number of years the dollar has tended to be a little weak toward the very last few weeks of the year. When the markets reopen in January I have no reason to think that the attitude will be any different from what it has been, which would mean that there is certainly no need to intervene. But, as we've seen many times before, these moods can change quickly. Although the dollar has declined really quite significantly in terms of the mark and most of the other European currencies, in terms of the yen it has declined very little; it's still at about 144 yen and at the time of the G-7 meeting it was around 146. And despite rather substantial amounts of intervention and other changes, there has been an awful lot of demand for the dollar against the yen. So, the short answer would be that I would see no occasion or need to be intervening during this period. But it's very hard to be certain about it, and we do have this problem of the accumulation of interest, which is going to push us up against our limit. So it seems to me, as a matter of prudence, that we do have to have some leeway to be able to operate.

CHAIRMAN GREENSPAN. Governor Angell.

MR. ANGELL. I think we ought to note that during 1989 we have sold over 2-1/2 times more dollars than in any other previous year of selling dollars. We've sold \$22 billion so far this year and the rest of the world has sold \$54 billion. We've had a total of \$76 billion of sales. By and large I think this has been appropriate; I don't want to take a position in regard to not supplying the

opportunity to do what needs to be done if there's any confidence whatsoever that the policy will be properly pursued. But when the weighted exchange value of the dollar has been on a three-month decline, which of course still leaves it well above year-ago levels, for us to sell and try and affect the yen/dollar relationship is at best naive and at worst stupid. It just doesn't make any sense whatsoever. Now, if there's a way to get that message through to the Treasury without some of us having to vote "no" on these kinds of matters, that's the preferable way to go.

CHAIRMAN GREENSPAN. Let me answer that. I would be a little stronger than you. The sensibleness of this [unintelligible], as Sam has said. I think there have been innumerable occasions since the last FOMC meeting when the water they are drinking over there obviously has had something in it. But they have calmed down and I can't conceive that they would want to push on this side.

All I can say to you is that considering the fact that the ultimate legal authority is over there [at the Treasury] I would say that the Desk has been very successful in fending them off. I have tried to convince some of our colleagues [at Treasury], with some success I think, and we will continue to do so. The authorization of \$1 billion doesn't affect that in the slightest. That is there just in case the water gets too bad or something and we can keep them down to small amounts; but we're running out [of leeway]. All I can say is that I don't see any sentiment either in Sam's operation or any place in the Committee that would be supportive of anything other than what you suggested. It only comes down to this: we will do our best to keep them down.

MR. ANGELL. Well, if they say they're going to jump off the cliff, could we promise not to link hands and jump off with them?

CHAIRMAN GREENSPAN. Yes, we could.

MR. ANGELL. I would prefer that we maintain our hand in the [unintelligible]; I agree with the sentiment that says that we ought not to pull ourselves out. It ought to be seen as an unusual move for us to take action for the Treasury's account without our doing it [for our account]. If that were to be the case, then I can support the increase in the limit because I do expect that we will receive interest on these funds.

CHAIRMAN GREENSPAN. I don't want to say to you that we will be successful in keeping them in [line]; we may or may not. You know them as well as I know them.

MR. ANGELL. Yes.

CHAIRMAN GREENSPAN. All I can say is--

MR. ANGELL. Yes, I know the same people.

CHAIRMAN GREENSPAN. I think it's unfortunate that we have to move here prior to the study being completed, [but] I think it's prudent to do so and we ought to. Lee Hoskins.

MR. HOSKINS. That was essentially what I was going to say. I don't think it's appropriate to tie Sam's hands on this one. If in fact we're going to have a full discussion down the road as to [the role of] our agency and the principal function with regard to the Treasury, I wouldn't want to see us stay in a mode of going up a notch here and there without ever questioning why we're doing it in the broader perspective--particularly when we're at this magnitude. I understand your argument for coordination but that doesn't seem to me to be an argument for \$20 billion of Federal Reserve or \$40 billion [total] of U.S. [participation]. I think we ought to visit that issue very carefully--that's the intent of the study--and [for now] I think we ought to pass on Sam's [recommendation] and get on with it.

CHAIRMAN GREENSPAN. Anybody have any other questions?

VICE CHAIRMAN CORRIGAN. I'll just add two quick comments. One is that I do think we have had a genuine measure of success in terms of the Treasury's attitudes and eagerness. That's not to say, as Alan said, that it guarantees anything for the future. But I think there has been some clear progress there. The second thing is more fundamental and that is that I think one can make a pretty good argument that even in the past six weeks the risks have shifted in a not inconsequential way in a direction--

MR. GUFFEY. Jerry, it would be helpful if you'd speak up a little.

VICE CHAIRMAN CORRIGAN. I was saying that I think one can make a pretty good analytical case that even in the time frame of the past six weeks or so the risks have shifted in the direction in which rather than worrying about a strong dollar we could find ourselves worrying about a weak dollar. And I think that just reinforces the basic case that a number of people have stated here. So quite apart from the theology of it or the politics of it, I think the substance of it is clearly on that side.

MR. ANGELL. Well, that was my point precisely.

MR. BLACK. If we didn't approve it, Sam would end up having to buy some dollars with some of his earnings on foreign currencies to stay below the limit. So we pretty well have to do it for that reason. Maybe--

MR. ANGELL. It might not be bad to realize some of those profits.

MR. BLACK. Well, let's see.

VICE CHAIRMAN CORRIGAN. We're better off in the loop than out of the loop.

MR. BLACK. Yes.

MR. HOSKINS. Yes, but the question is magnitude isn't it?

MR. BLACK. Yes.

MR. HOSKINS. How big do we want it to be? The bigger it gets the more that becomes a policy variable that I think is an inappropriate one. It takes our eye off the domestic economy and it takes our eye off price level stability.

MR. BLACK. The limit has to be enough to keep it from--

MR. HOSKINS. I understand Sam's problem now; I don't have any problem with that. But I think we need to revisit the issue of why we do foreign exchange market intervention and, in particular, the size of that intervention.

MR. BLACK. I'm not disagreeing with that.

CHAIRMAN GREENSPAN. Are there any further questions of Sam? If not, can I have a motion to ratify the Desk's actions since the November meeting?

VICE CHAIRMAN CORRIGAN. So move.

SPEAKER(?). I'll move it.

CHAIRMAN GREENSPAN. Without objection. We also have a motion on the foreign currency balance limit--[an increase from \$20 billion to \$21 billion].

VICE CHAIRMAN CORRIGAN. So move.

CHAIRMAN GREENSPAN. Is there a second?

SPEAKER(?). Second.

CHAIRMAN GREENSPAN. Any objections? If not, would you bring us up to date on the domestic Desk operations, Mr. Sternlight?

MR. STERNLIGHT. [Statement--see Appendix.]

CHAIRMAN GREENSPAN. Questions for Mr. Sternlight?

MR. FORRESTAL. I would just like to say that I find it extraordinary that the market reacted the way it did on Wednesday. This was, after all, the beginning of a five-day holiday period plus a weekend. They know that the demand for reserves is high in that period; certainly they have seen that in the past. So I must say I was very surprised at the reaction. The newspaper story, of course, put a little different light on it on Friday. But this is the question I would like to pose, Peter: The market is obviously focusing on a very specific federal funds rate--

MR. STERNLIGHT. Yes.

MR. FORRESTAL. --and it was 8-1/2 percent in this case. If there were more fluctuation on a day-to-day basis, as we've had in the past, do you think the market would have reacted the way it did?

MR. STERNLIGHT. I doubt it, President Forrestal. I think part of their reaction [reflected their] sense that we have been focusing more closely on funds rates in the last year--or pretty much

since the stock market break of late 1987. And I think that sense of a closer adherence to the funds rate has gotten around the market.

MR. FORRESTAL. So, if we were to change our operating procedures to get more fluctuation or more noise in that rate, would that not be helpful in reserve matters?

MR. STERNLIGHT. I think it could be. We would have welcomed opportunities to do that. An obstacle to doing that is this sense of the borrowing/funds rate relationship not being as reliable as in the past. And I think that's partly what has kept us more closely bound to the funds rate.

CHAIRMAN GREENSPAN. President Black.

MR. BLACK. Peter, off and on for several years Roger Guffey has been raising questions about whether the seasonal borrowing levels mean the same thing as the adjustment borrowing levels. Intuitively, I can't see how they really could because I don't think of banks as feeling the same degree of pressure when they have a [seasonal] loan that doesn't have to be paid off until a specific maturity date. But the studies that the staff has done always have suggested that, so far as we can tell over the banking system, the reaction to either type of borrowing has been pretty much identical and we have treated them as identical. This time we made two technical adjustments because of misjudgments about the level of seasonal borrowing. Does this indicate any change in the attitude of the staff toward seasonal borrowing?

MR. STERNLIGHT. Don may want to comment also, but clearly we have recognized more explicitly in the last year, I would say, the changes in seasonal borrowing and we have made adjustments to the borrowing level in recognition of that. I think of the seasonal borrowing as in a kind of in-between zone. Banks clearly are not under the same pressure to repay those as they are with adjustment credit borrowing. But there is some sensitivity of seasonal borrowing to the spread of the funds rate over the discount rate. So in that sense it probably would be a mistake to focus just on adjustment borrowing; but it probably should be regarded in a somewhat different light--as we have been regarding it recently--than the adjustment borrowing.

MR. KOHN. I agree with what Peter just said. Past studies had shown that seasonal and adjustment borrowing were somewhat different; as Peter said, seasonal borrowing is a little less interest sensitive than adjustment borrowing. But we found that when we added the two together we had a function in which seasonal borrowing--the part that wasn't interest sensitive--got lost in the noise of the overall function. And I think what's happened here is that with adjustment borrowing being so extraordinarily damped the seasonal borrowing now shows through into the overall function. So we've been making these technical adjustments sometimes between meetings. We have pointed this out in the Bluebooks for some time now and are trying to take account of it. This is something that we've been doing for at least a year I would say.

MR. STERNLIGHT. Yes.

MR. KOHN. And the swings in seasonal borrowing have been much wider than previously; we're at record levels of seasonal borrowing.

MR. BLACK. It makes sense to me that you're doing it. But that's what I would have concluded without a study. One of my predecessors used to say that research consists of proving with uncertainty that which was known for certain beforehand. I'm glad to see this now and I imagine Roger is glad to see it too.

CHAIRMAN GREENSPAN. Governor Johnson.

MR. JOHNSON. Peter, you may have said this and I just missed it. Even after we added reserves on that Wednesday with the funds rate slightly soft, we did that on the basis of an anticipated firming later in the day because of the reserve need, right?

MR. STERNLIGHT. Well, we certainly had the reserve need for the period. I wouldn't have been surprised if funds had firmed later that day because we were projecting it as a reserve deficit day in a reserve deficit period.

MR. JOHNSON. Yes, I remember funds slipped a little further in that period.

MR. STERNLIGHT. They slipped further that very day. As I said, it may have been that, as participants were beginning to move toward that misimpression of an easing, the banks that needed funds began to slacken their purchases. What would go through their minds, I suppose, is: Why buy at 8-3/8 percent if it's coming down to some lower level?

MR. JOHNSON. So you think there was some anticipation already growing in the market after our call, even before the news stories came in?

MR. STERNLIGHT. Well, even the beginnings of somebody raising the possibility of an easing started to generate some reaction among the funds market participants; and the situation kind of fed on itself. The softening that occurred in the funds rate later that day probably fed back to more market participants, which strengthened their sense that there was probably an easing underway.

MR. JOHNSON. Where did the funds rate end up that day?

MR. STERNLIGHT. It got down to 8-1/4 percent, or maybe a little lower.

MR. JOHNSON. So on that Wednesday it got down to 8-1/4 percent even before the stories?

MR. STERNLIGHT. Yes.

MR. JOHNSON. How did the call go? Was there a broad consensus on what to do on the call?

MR. STERNLIGHT. On our daily conference call?

MR. JOHNSON. Yes.

MR. STERNLIGHT. As I recall, there was no [Reserve Bank] President on the call that day.

MR. BLACK. That's the problem!

MR. STERNLIGHT. We had our usual discussion with senior staff at the Board; as we were having that discussion funds were trading at 8-7/16 percent. I think a question was raised as to whether the market might misinterpret that; and my judgment was that, no, they would not misinterpret it. Now, it was during the call itself--we began at 11:30 and the call was already well under way--when we saw the funds trading at a couple of the brokers slip off further to 8-3/8 percent. And we decided to leave the program in place. One can second guess this, but my judgment was still that it would not be misinterpreted. It was misinterpreted.

MR. KOHN. By the way, my notes suggest that funds did firm a little toward 8-3/8 to 8-1/2 percent at the close. The average on the day was 8-3/8 percent, so there was quite a bit of trading at the [8-1/4 percent rate].

CHAIRMAN GREENSPAN. President Keehn.

MR. KEEHN. A meeting or two ago I raised a question about the seasonal borrowing program and it just came up a moment ago. It seems to me that we've been through a year in which the seasonal borrowings have been very, very heavy--maybe for some reasons that don't absolutely relate to seasonal requirements. And at this point, it seems to me it's getting a bit in the way of the operation of the Desk. I wonder if that doesn't raise a question as to whether or not we ought to look at the seasonal program to see if there's some way we could price it or handle it differently so it doesn't impact on the operations of the Desk.

MR. KOHN. We have a memo underway on that. We have been consulting with the discount officers at the Reserve Banks. I think we have it on the Board's agenda for late January. Is that right?

SPEAKER(?). It's not actually scheduled yet, but that's what we are planning.

MR. KOHN. We are planning to put that on the Board's agenda after further consultation with the Reserve Banks. So, yes, we are looking at the seasonal program, even in terms of whether we should have it.

MR. KEEHN. But we will be getting to it at a time of the year when the [Reserve] Banks will be back out offering the program again. So time is running [out].

MR. KOHN. That's one reason why we were pushing to get it on the Board's agenda.

MR. BOEHNE. Well, if we're thinking about changing that program--and there may very well be good reasons to do it--I would not do it so abruptly that we have banks expecting that they would have

those funds during the spring months and then we pull it. I think we have to give them some warning when they've had this for several years. Even though it gives us some problems at the Desk, we need to be mindful of what we do to them as well.

MR. STERNLIGHT. I'd like to interject, Mr. Chairman, that I don't see the seasonal borrowing program as giving us significant problems of implementing policy at the Desk. Now, there may be good reason to review that program and revise it; but I don't see it as a problem for implementation of policy.

MR. KOHN. In our thinking about this, President Boehne, we were certainly going to give an option--if there were major changes in the program--to delay those changes. That would be one of the things the Board would need to consider.

MR. JOHNSON. When this issue came up before I think the argument was that perhaps seasonal doesn't present a problem for us when it's mixed with adjustment borrowing. But even if it's shown that it has some noise in it, to separate it out to a point--

SPEAKER(?). [Whether to] have it in there--

MR. JOHNSON. [Do we] want to have it in the reserves?

MR. KOHN. In the current situation, Governor Johnson, if we were just targeting adjustment borrowing we would be encountering problems of equal magnitude. I agree with Peter: I don't think we would [unintelligible] the level of adjustment borrowing to shifts in demand for adjustment borrowing. I don't think the seasonal borrowing is really the root cause of the problems with the borrowing function.

MR. JOHNSON. I agree with that. But it's just another minor noisy item or potentially noisy item.

MR. GUFFEY. A question: Have you even thought about, or can you determine, why adjustment borrowing is so low? Is there simply so much liquidity out there either domestically or from abroad that they don't need the window?

MR. KOHN. Well, we have thought about it. In fact, we had a special session about this at the discount officers' conference in October. This is all second hand because I wasn't there, but [they felt] the major issue really had to be the concerns of the banks about coming to the window and what that would convey to the rest of the market in an environment in which there were a lot of questions about bank soundness. Although we don't announce discount window borrowings --that's confidential information--often other people in the market know it, in part because we do ask the banks to go out and bid vigorously for funds before they come to the [discount] window. So there's somewhat of a pattern of purchases in the federal funds market that tends to broadcast that fact and often it does get out one way or another. So I think that's a major issue. There were some other factors, such as monitoring their accounts more closely partly because of daylight overdrafts and a few other things like that. We put in a penalty discount rate for very large borrowing, which may deter some big banks. So there were a number of factors; no one of them seems to explain it.

CHAIRMAN GREENSPAN. Governor Angell.

MR. ANGELL. Don, what would be the case for or against releasing our reserve estimates? That would be quite different, it seems to me, than our releasing or announcing what our policy is.

MR. KOHN. I've given that some thought, Governor Angell. It makes me inherently nervous to release projections. Maybe this is a bureaucratic problem because quite frequently we're going to be wrong on those projections. [Unintelligible] and we also have a problem with the required reserves inherent in that.. [Unintelligible.] So we've given that some thought. As I say, I don't like the idea of releasing projections because of the problems and also because I think the market would tend to say: Well, they're projecting a \$2 billion-a-day need so they ought to be doing \$2 billion today. It would tie the market's expectations into our projections very, very closely and I think in the end it would reduce our freedom of action. If we saw signals in the funds market that tended to contradict our projections, for example, I think releasing the projection would give rise to some very specific expectations about exactly what the Desk would be doing given those projections and would tie our hands even more. So, I have some questions about releasing daily projections of two-week reserve needs every day.

MR. ANGELL. Well, that's an understandable response. I would comment, Don, that it's not very bureaucratic to suggest it might be bureaucratic. Mr. Chairman, the point is that I think we do have an objective to preserve our policy freedom and freedom from disclosure. And that's why I asked the question. Don, would it help at all if you were to do it with a range?

MR. KOHN. It might. I'd have to think about that and so would Peter. That might loosen things up a bit though I think it would have some of the same problems, perhaps ameliorated to an extent. One issue that Peter and I have discussed is whether we should release our previous day's balance sheet every day so at least the market would know where we were. I just throw that out; that would take care of part of this problem but not all of it and it's something we will be looking into. There are pros and cons on that also and a lot of thorny issues that need to be resolved. But it's something that Peter and I were planning on looking at over the next month or so.

MR. ANGELL. I'm glad you had the conversation. I do want to express confidence in your judgment in regard to what you recommend, but I'm glad you're thinking about it.

CHAIRMAN GREENSPAN. Any further questions for Mr. Sternlight? If not, may I have a motion to ratify the transactions since the last meeting?

MR. MELZER. So move.

CHAIRMAN GREENSPAN. Is there a second?

VICE CHAIRMAN CORRIGAN. Second.

CHAIRMAN GREENSPAN. Without objection. We now move on to the economic report. We can start with Ted Truman.

MR. TRUMAN. [Statement--see Appendix.]

MR. PRELL. [Statement--see Appendix.]

CHAIRMAN GREENSPAN. Questions for either gentleman?

MR. BLACK. Could I ask, Ted: What would be your figure for net exports of goods and services for the third quarter?

MR. TRUMAN. It's about \$6 billion less than what's in the Greenbook.

MR. BLACK. You mean it's a \$6 billion improvement?

CHAIRMAN GREENSPAN. What would the fourth quarter be in the Greenbook on the basis of--

MR. PRELL. I think we'd make very minor revisions at this point. Basically, we had not received the retail trade inventories. We had heavily discounted the wholesale trade inventories, which we received at the very last minute. When we look at those data and at the trade data, our hunch is that the best guess is still in that 0 to 1 percent range--not appreciably different from what we have now.

CHAIRMAN GREENSPAN. So inventory accumulation is up and net exports are down?

MR. TRUMAN. Right.

CHAIRMAN GREENSPAN. That brought sales down. President Parry?

MR. PARRY. Mike, a question or two about Boeing: We had a conversation with them in the last week that suggested that the delivery of planes in the fourth quarter was a bit stronger than we thought it would be--24 planes in the 48 days during the strike. And they actually saw their inventories run down a little. We do not have inventory data for their supplies. The implication is that in the subsequent quarter one would not actually see a runoff of inventories but a slight accumulation of inventories and that the impact on [exports] would not be as great. Now, I don't know when you checked with them--and perhaps different people give different information--but it's sort of interesting because if these statistics are reliable, it could be that we're not going to see as much fluctuation in exports and inventories in the fourth quarter versus the first quarter.

MR. PRELL. Well, we have been hounding those folks and evidently didn't hit the same person you hit because it sounds like you got much more information than we've been able to glean on the details of their scheduling.

MR. PARRY. We do have a lot [of information]. I don't know how good it is; that's the problem.

MR. PRELL. We have been trying and trying to get these facts pinned down and I have not heard through my colleagues--

MR. TRUMAN. Well, let me make two comments. One is that the October numbers did have a big downward adjustment in aircraft shipments relative to the previous month.

MR. PARRY. Sure.

MR. TRUMAN. The second is that some of the export sales--and this maybe only speaks to part of the problem--had to do with the timing of shipments [rather than how] the workers were scheduled. So in that period there are two questions: To what extent are they being exported rather than sold domestically relative to the average experience? And to what extent do they come out of inventories? That is the question you were addressing.

MR. PARRY. Well, they did have the data of the 24 produced during the strike: they exported 15 of them and 7 of them were 747s, which are the big ticket items. So, exports seem to keep up. Now, that would square with what we see in the October numbers.

MR. TRUMAN. Well, they have stayed up. The total of large aircraft was \$10.2 billion; that's down \$600 million from the previous month but it's up in fact from the early part of the year. So it's not that they weren't continuing--

MR. PRELL. What we've tried to communicate, President Parry, is that all of these are short-run factors, including the earthquake and so on. Basically what we see is growth in the range of about 1 to 1-1/2 percent from the fourth quarter through the second quarter.

MR. PARRY. There was one other point they made regarding production effects that was sort of interesting. They estimated that normal production would be about \$20 billion at an annual rate; and they were estimating about a \$9 billion rate for the fourth quarter, which would mean an \$11 billion change as opposed to the \$14 billion. So, perhaps there's not quite as much GNP effect as you have there. But, I'm sure all of this will get sorted out in the next month or so.

MR. TRUMAN. Assuming the report [made it] to the BEA?

MR. PARRY. Yes.

CHAIRMAN GREENSPAN. President Boehne.

MR. BOEHNE. Mike, I wonder if you might comment a little more about what's going on in terms of the trade-offs in your forecast in inflation and growth. Essentially, for the next two years you have subpar growth of under 2 percent and the unemployment rate rising to over 6 percent. You have a somewhat heroic assumption that there will be no further easing in monetary policy over that period. Yet the inflation trend line is not very good. We get some relief in inflation next year but then in 1991 we get inflation going back up. Now, I'm not one to push the precision of these numbers, but essentially we don't have much progress over this time horizon, given the subpar growth. It's less than encouraging and I would appreciate your commenting on it.

MR. PRELL. There are a number of items involved here. One is that the unemployment rate, while moving up faster in this projection than in the last one, doesn't really get to a level where we think it would have a significant effect in damping wage and price increases until we get well into 1990. In the near term, though, we think the smaller consumer price increases we have had in the second half of this year and that we anticipate in the first part of next year will be helping to damp wage increases. So, as we look at wage trends--setting aside the self inflicted wounds of social security tax increases and minimum wage hikes--the underlying trend is beginning to turn down very gradually around the middle of 1990 and it continues on down. A couple of other factors affecting the contour are the oil price assumption and the dollar assumption. Oil prices in the near term are a helpful element in the picture, but as time progresses and we get into 1991 our assumption of no real change in the oil price begins to become a neutral factor as opposed to a helpful factor in the inflation trend. Finally--and this is sort of what we demonstrated in the exhibits yesterday--the autonomous depreciation of the dollar, so to speak, does have some effect on that short-run trade-off. If you took out the dollar depreciation that we have, the picture would be much more favorable in terms of the apparent trend. Basically, next year's CPI probably would not be materially above 4 percent and might even be a shade below. Looking out into 1991 it probably would be at 4 percent or a shade below. So that might give you a little sense of movement toward a lower inflation projection.

CHAIRMAN GREENSPAN. Governor Johnson.

MR. JOHNSON. Sounds like a heck of a sacrifice ratio to me.

MR. PRELL. But in a sense we don't have any real sacrifice occurring until we get out into 1991.

MR. TRUMAN. As we measured it yesterday.

MR. PRELL. As we measured it.

MR. JOHNSON. I'm not sure. It seems like a lot lost on the real side and nothing [gained] on the inflation side. Although there may be a tenth or two, it's hard to see.

MR. PRELL. Governor Johnson, let me remind you that if you play this game of abstracting from the dollar's movements, particularly the ones that we don't see as tightly connected to monetary policy and other fundamental factors, you would have to elevate the recent inflation rates in gauging the trend. So in a sense, you're working against these continuing price level shocks that affect how the year-to-year inflation movements look. But if you want to do that--and particularly if you felt others would do that and be charitable in their assessments of the trends and in shaping their expectations--then the picture isn't quite as unfavorable as it looks.

MR. JOHNSON. It might be useful to try to separate that out.

MR. PRELL. Well, we have. And we can present that arithmetic again. There is that question of how people, in shaping their expectations, are going to read those data and whether they are going to take the same sort of view.

MR. JOHNSON. Well, I agree with that. A couple of points: You mentioned the Blue Chip forecast. I agree they are not predicting a recession, which I think is interesting, but they do expect significantly lower trends in the funds rate.

MR. PRELL. It looks to me like a cut of about a half point by next spring is the consensus forecast.

MR. JOHNSON. Right. I think most of the forecasts that are not predicting a recession have the funds rate path coming down.

MR. PRELL. Yes, I think there is a prevailing expectation of a decline in the funds rate. But I think that most people's concerns about recession really are near term enough that they see the interest rate decline as being coincident with the period of greater softness. What they're getting is a bigger boost to growth in the latter half of 1990 and on into 1991. And this goes to the point I made yesterday: I think they perceive the Federal Reserve as being very loath to see low growth and willing to accept a 4 percent plus CPI rate of increase. That is the projection for next year--something over 4 percent with no sign of any deceleration going into 1991.

MR. JOHNSON. I agree with that. Another point was made about the dollar when you were talking about the dollar depreciation forecast having a positive effect on the real side. Doesn't it matter how the dollar depreciates? It's one thing if it results from lower rates here; but isn't it another thing if it results from higher rates abroad as to the relative impact on the real side here?

MR. TRUMAN. You mean higher interest rates?

MR. JOHNSON. No, a lower dollar. If the dollar is lower because of higher rates abroad, let's say.

MR. TRUMAN. Higher interest rates?

MR. JOHNSON. Don't higher interest rates abroad mean that foreign demands are going to be weaker?

MR. TRUMAN. Well, yes, but it depends on whether you had [forecast] foreign demand right to begin with. And as far as this year was concerned, it's fair to say that we didn't. We have growth in the G-10 countries on average in 1989 at 3.4 percent, a percentage point higher now than we did in February at the time of the chart show. And we have the same growth rate, essentially, for next year so that the average level of economic activity is substantially higher than we had it before. So to some extent, the interest rate response to that in trying to [damp] down the recovery, [unintelligible] which is certainly that it had an effect on income and demand. And therefore, in some sense [economic activity] would be less than otherwise. But I think if you put the two things together, on balance, you have continuing strong growth on the income side plus this exchange rate--

MR. JOHNSON. So you're suggesting to me--

MR. TRUMAN. Yes, and I'm not sure to what extent. In fact, I guess you could even argue the other way around. If you looked at

models and you looked at the kind of interest rate differential changes that we've seen so far this year you could argue that the dollar should be much lower than it is--that the change in the dollar should be much greater than we've had since June or something like that. So in some sense we undershot those kinds of weak relationships that we shouldn't rely on.

MR. JOHNSON. Well, let me just get it straight after all that. I asked the question: If the dollar is weaker in the forecast because of higher rates abroad, since we're not projecting--

MR. TRUMAN. The point I was making is that it is really only a question of timing. Over the last three forecasts going from July of this year to the end of the forecast period the net change in the dollar that we've assumed or projected has been the same. And in that period to some extent we've raised growth abroad and at the same time we've also raised interest rates a bit. However, it seems that we have had some of it sooner than this [straight] line projection that we've assumed. Therefore, as Mike and I have said, you move some of it exogenously. We didn't fine tune the forecast [to that extent] so some of the real side and price effects, which under the original forecast would have come in 1992, will have moved into the forecast [for 1991]. I'm not sure I'm answering your question but--

MR. JOHNSON. Yes, but [unintelligible]. The last question I have is the one I keep repeating--I know you're sick of hearing this but I'm still looking for an answer too. And that is: A year ago or even less than that you had a slightly stronger forecast. I realize if you go back to last April's FOMC or so that most of the weakness in the values projected [were showing up] in early 1990 rather than this year. The economy has softened a bit more toward the tail end of this year than you had forecast in those earlier projections and you actually were forecasting about a 10-1/2 percent funds rate and about a 10 percent long bond as of now. Yet rates are fully 200 basis points lower than they were when the forecast was for a real economy that was expected to be a little stronger than it is today. I'm still trying to find some way of reconciling that--how that has occurred when the interest rate scenario has been totally different and we've had much lower interest rates. If the economy has been slightly weaker than the forecast, I don't think it could be the dollar. Exports have held up pretty well in this whole forecast. In fact, I thought the lags were longer on that; at least that's what we've been saying. So it's not on the export side. Where has the weakness occurred? Or why has the forecast borne itself out generally, with a structure of interest rates that is 200 basis points lower?

MR. PRELL. Well, as I've indicated before, this is a very complicated thing to try to sort out. We did an MPS model run to try to address this, and at this point the 1989 fourth-quarter to fourth-quarter growth in real GNP is the same as what we had in February. What has happened in this accounting is that the lower interest rates occurred only after a period of rise, so we haven't had that playing out entirely. We've had a higher dollar and the combination of these two forces end up being neutralized. So essentially we have a [GNP growth rate of] 2-1/2 percent, as we had anticipated. Because of the pattern we have had, though, if you went back and took the dollar and interest rate paths that we had in place as of February and compared that to what we now have, the picture for 1990 should be stronger than

what we have. I think we have perceived some areas of weakness compared to what we had been anticipating. In housing, for example, we haven't gotten the kind of response we had anticipated. And there are some other sectors that probably are a touch weaker fundamentally at this point than we had anticipated. But basically in 1989 it's a story of lower [than anticipated] interest rates offsetting an unanticipated strong dollar.

MR. JOHNSON. Since when?

MR. PRELL. In the year 1989, Q4 to Q4.

MR. JOHNSON. Well, what about my point on exports? Am I wrong that exports have not held up according to the forecast?

MR. ANGELL. You mean the February forecast.

MR. PRELL. We had [forecast] a 12 percent increase in real exports of goods and services in the February Greenbook. We have an increase of 7-1/2 percent now.

MR. JOHNSON. Is that right?

MR. ANGELL. 7-1/2 percent from when to when?

MR. PRELL. Q4 to Q4.

MR. TRUMAN. A little of that is lower interest rates, I might add.

MR. PRELL. On the services.

MR. TRUMAN. Yes. In goods we may be off by a percentage point; the rest of it I think is--

MR. JOHNSON. Is that enough to account for the difference in interest rates?

MR. TRUMAN. Sure. Do you mean the services side?

MR. JOHNSON. No, I mean is that difference in the export projection enough to--

MR. TRUMAN. But, as Mike said, the real projection is approximately the same.

MR. JOHNSON. Right.

MR. TRUMAN. And the question is whether-- Well, it is slightly differently distributed.

MR. JOHNSON. Okay. I think that's all.

CHAIRMAN GREENSPAN. Governor Seger.

MS. SEGER. I have a question. Even though Mike can tell me never to ask about the quarterly distributions of economic activity, I'm sorry but I'm so confused that I'm going to have to ask anyway.

In looking at the quarters for 1990, you have the strongest growth in the first quarter and--

MR. PRELL. That's Boeing and reconstruction.

MS. SEGER. Well, I think that's giving a lot [of weight] to both of those! As for the tremendous pickup in final sales from the present quarter to the first quarter, I hope that's accurate, but what if it isn't?

MR. PRELL. There are a number of things that could go wrong, or even right, in the outlook. If consumer demand, for example, is fundamentally weaker than we perceive it to be, [unintelligible] will be longer lasting and have worse effects. If export demand isn't as strong or business investment isn't as strong, these elements of final demand could be a drag on output.

MR. SEGER. You have a big pickup in consumption expenditures on durables.

CHAIRMAN GREENSPAN. That's a passing--

MR. PRELL. We have a rebound in car sales in the first quarter as they try to get these inventories down.

MS. SEGER. Well, maybe that's where I should really part company with your forecast.

MR. BLACK. But if you take those two factors off, Martha, they total 9/10ths of a percent--if I'm not wrong--so this comes down to 1.2 percent. So, really, your first quarter is as weak as any quarter in 1990 after you take account of the earthquake and the Boeing strike.

MR. PRELL. Basically, auto production in the first quarter is deducting something like 3/10ths of a percent from output growth. So it's a decided negative, as it is in the current quarter. But our assumption is that through a combination of very low production levels and expanded incentives they will be able to get the inventories in reasonable alignment by the spring. As best I can tell from reports I have had from automobile companies they have budgeted very large amounts for incentives [next] year. They have incentives in place already but they are well below what they have budgeted for the year as a whole. So I would expect them to pull out all the stops in the next few months, unless there is a surprising pickup in sales without that.

MS. SEGER. I'm sure they're going to try the incentives. We may talk to different people--we probably do--but I can tell you there's disappointment about the effectiveness of the incentives. The bang for the buck seems to be less and less each year. These incentives have been around for three or almost four years now. And to show you how desperate things are, the incentives have been put on minivans by two of the Big Three, and minivans have been the stars of the universe in that they were selling quite well even when a lot of other models weren't. As I said, I hope you're right; but I have a feeling that the first quarter is going to be weaker than what we're showing here.

CHAIRMAN GREENSPAN. Well, of course, the automobile data don't really have an effect on GNP. You're pushing them out of inventory into sales and if the sales fail to materialize the only thing you're missing is the retail market. So, that's not going to affect the total of GNP.

MR. PRELL. No, it's not.

MS. SEGER. No. What I'm worried about is--

MR. PRELL. I'd emphasize that we still have production down. But if the sales with the added incentives don't come up to our expectations that means there's a more prolonged adjustment necessary. I think automobile companies have been trying to wrestle with the experience of the last few years in assessing what the price elasticity is and what the longer-run stock trends are. They have seen strong sales of cars and light trucks over the past several years and they have been trying, as we have, to get a handle on the extent to which people simply have accumulated a relatively large stock of cars at this point. On top of that there is concern about these very long car loans and how long people are in negative equity positions; they may be less inclined to buy a new car after the same interval that they previously did. So there are a lot of things going on that are hard to sort through.

MS. SEGER. The stories I hear are that the production schedules for the first quarter are written in pencil and are written very lightly.

MR. PRELL. We have January well below what they currently have announced. We don't have [the production schedules for] all of the Big Three for the subsequent months but we have just a shade over 6 million cars at an annual rate in the first quarter, which is a low rate.

MS. SEGER. Thank you.

CHAIRMAN GREENSPAN. President Hoskins.

MR. HOSKINS. On this last discussion, I think Mike was right to say one should not focus on the quarterly numbers. He has to focus on them because we want to see them. I don't know what the bands of error are around this, but I think somebody ran off a staff forecast yesterday that indicated the errors are really quite large one quarter out. So I think that was an appropriate comment. Also, having been in the business of forecasting quarterly numbers publicly, that's a very uncomfortable [position]. People ask you for those numbers but in fact you don't have great confidence in them. If your error--

MS. SEGER. We still have to live through these quarters-- quarter by quarter by quarter. And those, in fact, produce the average for the model for the whole year.

MR. HOSKINS. The second point on the issue we're struggling with on the autos: In a policy sense, is this a structural problem as opposed to an aggregate demand problem? I think that's really where you're heading with it and my comment is that it is pretty hard to sort that out right now. Let me go on to my question, which like

Manley I think I know the answer to, but I'll ask it anyway. As Wayne pointed out yesterday, we've had over 30 months of fairly reduced monetary growth--4-1/2 to 5 percent using the projection that this year will come out at about 5 percent. Many of my monetarist friends argue that the inflation rate is going to come in next year at less than the consensus forecast. They are not using structural models. The question to you is this: Is the probability equal in terms of the errors on either side of your inflation forecast or do you believe the probability is higher one way or the other?

MR. PRELL. We never assert that, if we could formalize it, the probability distribution is perfectly even on both sides. But we think it's reasonably balanced. We noted yesterday that if you look at the P* model, for example, with a sort of money approach, we're in balance essentially between the equilibrium level and the actual price level. And our monetary forecast wouldn't yield through the P* model a distinctly different outcome for inflation than we have in the Greenbook.

CHAIRMAN GREENSPAN. I must say the P* model on prices is better than any monetarist model on prices that I've seen.

MR. KOHN. P* has almost precisely the Greenbook deflator; it has 3.9 percent and the Greenbook has 4 percent. For 1991 it shows a little tilt down that the Greenbook doesn't; it has 3.6 percent and the Greenbook stays at 4 percent. My guess is that that's the dollar effect going through.

MR. HOSKINS. Is that running it with that 5 percent or 6 percent?

MR. KOHN. That's running it with 6 percent in 1990 and 5 percent in 1991.

CHAIRMAN GREENSPAN. Governor LaWare.

MR. LAWARE. The discussion that I wanted to have has already taken place, so I withdraw.

MR. PRELL. We might do better the second time around!

CHAIRMAN GREENSPAN. Any further questions? If not, shall we start our round table? Who would like to begin?

MR. BOYKIN. Mr. Chairman, with respect to the national picture, we concur with the Greenbook projection for weaker economic growth combined with stubborn and [unintelligible] inflationary pressures.

Looking at our District, the Eleventh District economy seems to have weakened in recent months, both in relation to its rate of growth earlier this year and in relation to the declining rate of the national economy. Overall District growth is positive but [barely] perceptible. Within the Dallas District, New Mexico has been growing faster than the nation; Texas has been growing at about half the national rate; and Louisiana has been declining absolutely. What is interesting about the economic performance in the District is the almost complete reversal in the areas of strength and weakness in the

economy at the present time versus, say, a year or two ago. Durable goods manufacturing is declining and that is the sector of our economy that led us into the modest recovery two years ago. Nondurable manufacturing has been holding up quite well. The chemicals and rubber products, plastics, and apparel all are showing employment gains between 2 and 3 percent. The energy sector has been a stabilizing influence on the District economy. The rig count and energy employment are both expected to contribute slightly to growth in the near future. Construction, which has been declining absolutely for the past several years, has stabilized and even has shown a little growth over the past several months. The strength in the construction figures has been dominated by the construction of new chemical plants, but there also has been some pickup in multifamily residential construction in a few markets where occupancy rates and rents are firm. Overall, District agriculture is not doing very well; we're anticipating that farmers' net cash receipts will be about 20 percent below last year's level. Growth in the services sector has slowed considerably outside of government jobs. In short, the Dallas District economy has shown spreading signs of weakness recently and business confidence outside of the Houston area has reverted to the very low levels of two or three years ago.

CHAIRMAN GREENSPAN. President Keehn.

MR. KEEHN. Mr. Chairman, conditions in the District seem to be mixed, but I think clearly [our economy] is moderating. Manufacturing, in particular the auto and auto-related parts of the manufacturing sector, is showing signs of weakness. But there are other parts, particularly construction for example, that seem to be doing at least a little better than the national numbers. There is little I can add to what we've already heard on the auto side, but given the importance of that industry to our District, I certainly feel constrained to say at least a word or two. Contacts with that industry [indicate that the situation] is really pretty grim. Sales levels have been down. As a consequence, the expectation is that by the end of the year the inventory levels are going to be at least at a 100 days' supply, or maybe more, which is awfully high. Consequently, as we said, the production schedules of the first quarter are going to be down very significantly--in the case of one manufacturer down by 23 percent as compared to the first quarter of last year. At this point they caution that the production risk is clearly on the down side, not on the up side. And the reason for that relates to this incentive business. I hear what everybody is saying about the opportunity for more incentive programs, but they already have been fairly heavy and have had a terribly important and very negative effect on earnings. I'm told, therefore, that there isn't quite as much room on the incentive side as people might believe and that the response to bigger incentives will be further cuts in production. At the dealer level the attitudes are pretty sour. Many of the dealers are claiming to be facing very serious financial problems and there is some risk that the automakers may lose some dealers. Having said that, I do think it's important to keep all of this in perspective: what we're talking about is a sales volume for 1989, including cars and light trucks, of 14.7 or 14.8 million. and that would be even with a very bad fourth quarter. That is down from previous years but still not a disaster. For 1990 the expectation is that the first quarter will be low, say, 14.1 million in sales, but that there will be a pickup in the second half. Therefore, for the year as a whole we could be looking at a

sales level of, say, 14-1/2 million, which though down would be not an unreasonable year. The effect of all of this, though, is pretty pervasive in the District because there are so many people who relate to autos one way or another.

Other parts of the manufacturing side are doing surprisingly well, I think. Agricultural equipment obviously is doing well, given the improvement in the farm sector. As for the [steel] business, 1989 shipments are expected to be about 83 million tons, which is less than in 1988 but not significantly so. And the outlook for 1990 suggests about 81 million tons--again down, but still not a disaster. On the retail side, I think it's too early to see how Christmas is going to work out. My understanding is that buying patterns have shifted and people are increasingly buying later in the Christmas season. But the retailers I talk to are reasonably optimistic as to how it's going to go. On the inflation front, I think the outlook has become somewhat better. We see a lot of capacity coming on in some of the major industries--autos speak for themselves--but in steel we've had some additions to capacity over the last couple of years and the same is true of paper and chemicals. And I'm hearing from people that there are a whole host of prices that seem to be moving down, not up. Therefore, from that perspective, the inflation outlook has improved. On the labor side, costs are up; most of it continues to be on the benefits side as opposed to basic wages and, therefore, the outlook doesn't seem negative. Net, it seems to me that the outlook for next year continues to be positive but certainly moderate. But I do think at this point that the risks are very much on the down side; at the same time, I believe the outlook for inflation perhaps has improved a bit.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Mr. Chairman, the economy in the West remains healthy with only a few signs of slowing growth. Employment gains have been less than earlier in the year but the rate of expansion has not diminished further in recent months. Even manufacturing employment has risen in the past year, up 1.2 percent. That certainly is a slower growth but it remains strong when compared to the rest of the country where manufacturing obviously has been either flat or down. All nine states in the District had employment growth during the past year that exceeded or matched the average growth in the rest of the nation. Even Arizona, a state that has been plagued by a lot of weakness in the construction area, has had employment growth of 2.9 percent, largely in services and trade employment. Also, I had the opportunity very recently to have a discussion with one of the largest retailers in the District who has some stores in this local area as well. He indicated to me that at least through the end of last week the Christmas season was equal to last year, which was a very good year. I don't know how recent weather patterns have been affecting sales in the last couple of days, but he seems comfortable that they will be able to match what was a very good year last year. Concern about the effects of defense cuts in California are a bit overblown, we're beginning to conclude. California has the largest share of defense procurement expenditures but on a per capita basis it really only ranks 10th in the country, which suggests that there is more diversification than in nine other states with regard to defense expenditures. Also, we observe that there are growing backlogs of orders for commercial aircraft in the state of California--either as a

result of McDonnell Douglas or secondary contractors to Boeing--and that is taking up most of the employment slack in the defense-related area. So in total the employment gains there are fairly respectable. With regard to Boeing, the Boeing settlement is quite complex and we've been trying to price it out. The best we can conclude is that it will increase labor costs on average about 8 percent per year over the next 3 years with two-thirds of that occurring in the first year. So it is a very complex and relatively expensive contract. But given the demand for their product I guess that's not all that surprising.

Turning to the national economy, I must admit that we have a somewhat stronger economy projected for the nation in 1990, primarily due to greater strength in PCE. As a result of that, our inflation forecast is slightly higher. Thank you, Mr. Chairman.

CHAIRMAN GREENSPAN. President Forrestal.

MR. FORRESTAL. Thank you, Mr. Chairman. I would describe economic activity in the Sixth District on average as being moderate at this point. The sources of strength are coming from natural gas exploration and production and that's basically in the Mobile Bay area. We're also getting increased oil exploration and the rig count has gone up in Louisiana, as Bob Boykin has mentioned. The petrochemical industry continues to do quite well and that's based basically on strong demand for exports in that industry together with domestic demand for agricultural products. Industrial construction continues to be good and the vacancy rates in that area are the lowest in the nation. It's a little hard to get a good fix on the retail sales situation. The people that I've talked to indicated that the post-Thanksgiving sales were relatively good. But the picture is mixed in terms of the latter part of the season. I would say that nobody is reporting or anticipating very robust or buoyant retail sales; but some of them are saying that sales will be fairly decent or not too bad. The most pessimism comes from Florida generally and from the city of Atlanta. The weaknesses in the economy are in areas that one would expect; they pretty well mirror the rest of the country. There is weakness in housing and housing-related sectors and we're also seeing spillover from the auto sector in both steel and aluminum. Paper industry people are now reporting less demand in that industry and also softer prices. Manufacturing is the same as in the rest of the country in that there is less demand for consumer durables. As I said yesterday, the people that I talk to in the District are really quite concerned about the fragility, as they perceive it, of the economy. They are less concerned about inflation. We also don't see very much pressure on wages or prices.

On the national scene, our forecast too is a bit stronger than the Greenbook and that goes back again to consumer spending. We've had a different forecast and a stronger one generally. As we've been saying, Mike, we think consumer spending on services particularly will be stronger than your forecast, and with that stronger growth we see less unemployment and slightly higher inflation. On balance, I think the risks are on the down side. In the present environment, with layoffs and the general attitudes of people, I think confidence could erode and that would be detrimental to the economy. There's a lot of apprehension in our District too, Bob, about the anticipation [of less] defense spending; that's particularly strong in Florida and Alabama. I think it's overblown too, but there is that fear. On the

inflation side, I think inflation is clearly still too high. Labor costs are still up. But having said that, given my view that the risk is on the down side, I think that we do have some flexibility in policy to gain ourselves a bit of insurance to protect against that downside risk.

CHAIRMAN GREENSPAN. President Guffey.

MR. GUFFEY. Thank you, Mr. Chairman. The District economy continues to improve modestly but the pace of improvement seems to be slowing somewhat. The farm sector remains a source of strength and the energy industry continues to improve. But growth in the manufacturing sector has slowed somewhat. In the agricultural sector a pattern has emerged with respect to the winter wheat and the very dry soil conditions that prevail. Because the weather has been so cold the snow has been very dry, which hasn't provided much strength to winter wheat. [Unintelligible] virtually no winter wheat being at pasture simply because it didn't get [unintelligible]. So far as the recent slump in cattle prices, a short supply of [unintelligible] could boost direct levels of prices in the first quarter of 1990. In the meantime, most District farm [incomes] were strong in 1989 and the prospects remain bright for 1990. Stable oil prices and increases in drilling for natural gas continue to buoy the District's energy industry. For example, the average number of active drilling rigs in the nation increased from 984 to 1,042 in November and in the District from 312 to 326. Both the U.S. and the District rig counts were significantly above year-ago levels. Most of that is in the natural gas exploration area. Manufacturing, particularly in the auto plants, is a downside element as has been noted before. I would say that we have no evidence of layoffs in that area; however, the temporary shutdowns that are planned for the auto assembly plants are in [train]. For example, a GM plant in Kansas City that would normally have a one-week temporary shutdown will take that one week and then two additional weeks in January, which supports the idea that the January production schedule is being cut back and that autos will be a source of weakness in the first quarter. On the other hand, the manufacturers of general aviation aircraft expect in 1989 to exceed the 1988 production level. Construction is up in our District and continues to improve. The October value of nonresidential construction contracts in the District stood 26 percent above the value in October of 1988 and residential contracts were about 20 percent above the year-ago levels. I would note that unemployment levels in all major areas of the District are below the national average. With respect to Christmas retail sales, the information that we have gathered suggests that the retailers are looking for sales that are modestly above last year's levels, which were considered fairly good.

As to the national economy, we would be very close to the Greenbook forecast. And we have the feeling that the risk is pretty well balanced yet with respect to the upside or downside movement of the economy.

CHAIRMAN GREENSPAN. President Black.

MR. BLACK. Mr. Chairman, we came here with the idea of saying that we thought the general outline of the Board's forecast was pretty accurate. But we intended to express the feeling that if we

had any doubts, the doubts were whether the economy would be quite as strong as the projection. And I think Mike essentially has done that in his revised statement. We've been influenced not only by the incoming statistics but by the anecdotal information that we picked up, particularly at our last Board meeting. It's always hard to interpret what business people are saying about things because they don't seem to have any concept of seasonally adjusted rates or anything of that sort; they are always looking at the previous year. They can say it's the worst ever and it really might be a seasonally adjusted improvement. Anyway, they said the things one would have expected them to say. They were universally pessimistic; and there hasn't been a meeting since the last recession when our directors have been as uniformly pessimistic as they were at this one. Other anecdotal information has been pretty much along those same lines. We're a bit more optimistic than the staff is, though, toward the end of 1990 and the first part of 1991; [we're expecting] GNP to pick up primarily because of export improvement. And I think it's quite possible, and probably likely, that domestic demand will be stronger than the staff is suggesting in its forecast. I think too that lower interest rates may well be compatible with our efforts to control inflation, and the staff is projecting essentially flat interest rates. Finally, I'm a bit more optimistic on prices than they are. It's a great comfort to me that the P* model, which I think is a very great piece of work, is projecting [unintelligible] for next year. But just looking at the way I see the market working, profits are being squeezed and they're being squeezed because businessmen can't pass on price increases. There's a lot more resistance to price increases now than at any time in my lifetime that I can remember. And I think that's why they can't pass these things on. I [refuse] to pay list on anything. Somebody accused me the other day of shopping three places before I'd buy an ice cream cone. I haven't gotten quite that bad! But I do think the American consumer is in that kind of--

CHAIRMAN GREENSPAN. Do you buy the ice cream at a different place than you buy the cone?

MR. BLACK. In essence what we do is buy in quantity and put it in the freezer and make our own ice cream cones at home! Anyway, I do think that is a bigger factor now than it has been. And I think some of these price indexes recently have been reflecting more inflation than perhaps we have had; for example, the last one shows automobile prices and apparel prices as being the two main offenders. The indexes are supposed to measure the price at which the items are generally available and I don't think they pick up the extent to which discounts occur. Automobiles, for example, you can buy at below dealer cost; there's no question about that in many cases. I think the System's practice of bidding for automobiles when we buy, which I think we have to do, really results in our paying higher prices than if we could go around and dicker with the dealers. I believe I can buy an automobile more cheaply than the Reserve Bank bank can buy one. I think the surveys are not picking up a lot of that discounting because the discounted prices don't appear to be generally available. So, I feel a little better about the price situation. I think [the outlook] looks very much like a soft landing with a slow pickup after that. That's probably too good to be true but that's my best guess.

CHAIRMAN GREENSPAN. President Boehne.

MR. BOEHNE. My area of the country is essentially flat with a lot of variation across industries and geographical areas. If you want to get depressed, I can take you to places in New Jersey to talk to builders, real estate people, and automobile dealers; it's fairly depressing. If you want to feel good I can take you to places in Pennsylvania where the general business climate seems to be quite good. There are a few straws in the wind that perhaps things in manufacturing are flattening out. We too have been going through a period in recent months where manufacturing clearly has been trending down. One picks up some evidence that orders may be picking up, although the backlogs still seem to be going down fairly quickly. I wouldn't read too much into that, but I think it is a straw in the wind.

On the national economy, I think the Greenbook forecast is a reasonable one. I think there is still some downside risk; the downside risk is greater than the upside risk. The inflation outlook for 1990 [in the Greenbook] strikes me as being about right.

CHAIRMAN GREENSPAN. President Syron.

MR. SYRON. In the First District, the latest indicators show our economy as slow to mixed, which is an improvement. Expectations are almost universally gloomy but I think that's not just because of the national economy. It's an interaction of the budget problem in Massachusetts--which is sort of a fiscal Beirut--the softer [real estate market], the problems we have in the high-tech industry, and expectations of potential problems in defense. There's a lot of concern about that, obviously, as a result of recent developments; and that greatly increases concern about the banks and what that means potentially. This really has been carried widely in the newspapers and is having an effect. I don't know how good the sample is but if you look at the Conference Board consumer confidence survey by region over the last year, the expectations in New England are 29 percent below where they were last year. Despite that, employment in the last month actually grew slightly in New England and the rate of [un]employment was flat. This is a significant improvement from the downturn we've been seeing for some period of time. Retailers are quite bearish and very concerned about sales. And the anecdotal information isn't encouraging in that regard. Some of that is attributable to the very cold weather we, as many people, have had, which is keeping people out of the stores. On the other hand, the cold weather obviously is going to stimulate measured sales of natural gas, utilities, and other things. Almost all of our manufacturing contacts report sales as flat, [unintelligible] down. For example, a heavy manufacturing who is headquartered in New England but who actually has a lot of his facilities in Lee's District and Roger's District is very, very pessimistic. He produces a lot of stamping equipment for the auto industry and that sort of thing. Interestingly, he has found his sales now to be getting into foreign nameplate domestic producers; he has cracked that market somewhat. Someone raised the point of a structural shift in the auto industry and I wonder if that isn't something that is happening. If you look at the sales of foreign nameplate cars produced domestically, they are holding up a fair bit better than sales of the Big Three. Both input prices and prices for products remain fairly well behaved. Although most firms improved--I guess this is universal--from past behavior, they hope to improve their margins [further] next year. At this point

most manufacturers we've contacted have not changed their plans for capital spending; their plans were not terribly ambitious in the first place, but they have not changed them a great deal. As I mentioned, the real estate market remains quite soft, particularly in the residential area.

Nationally, we're inclined to pretty much agree with the Greenbook forecast. If we have any area [of doubt] it might be that we don't know that we will get quite the reduction in the out years in spending on consumer services that the Greenbook has. In terms of my own perspective, as far as the national economy goes, I have come around to the view that things may be somewhat softer than I had thought originally. And I think this is borne out by the latest figures we've seen. There are two factors I'd like to mention to expand on that. One is that in going through the consumer confidence survey by region that I mentioned--and as I said I don't know how good the sample is--the two regions where consumer confidence actually looks pretty good with regard to expectations next year are the west Northcentral and the east Northcentral. The west Northcentral looks pretty good but in the east Northcentral I think it depends an awful lot on what does happen to manufacturing there. I also wonder, given the problems the banks have in real estate and elsewhere, whether more firms are going to have difficulty getting credit as they reach the point in the cycle when they turn to banks to get credit. I know this is happening; we're hearing a lot of complaints about this in our Consumer Advisory Council. I wonder whether banks are going to be more inclined to pull their horns in, which could lead to accumulating [unintelligible]. All this leads me to believe the risks are more on the down side than I had thought before. A difficult question for monetary policy, it seems to me, is exactly what the effect of rates is going to be on much of this: on the [unintelligible], I'm not quite sure; also on housing, given the demographics. [Unintelligible] may well be through the export sector, but they obviously will have an adverse effect on prices, which comes back to the issue of where we go next and how we relate that to yesterday's discussion.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. With regard first to the District economy, I think the economy is actually better than the mood. What is weighing on the mood are a couple of things that we talked about yesterday. One is that profit margins are getting squeezed and that clearly is affecting business peoples' view of the situation. The other is the struggling manufacturing sector in our area, particularly high-tech. But if you go beyond that, major retailers seem at least satisfied and maybe more with holiday sales thus far. There are scattered reports of smaller specialty operations not doing very well, but the major stores seem happy. The reports on virtually all the metropolitan areas in the District are generally positive in terms of business conditions. And because of some recovery in agriculture and other factors that I've mentioned before--including tourism, strength in the paper products and lumber industry, and expansion in mining--most of the rural areas are doing pretty well. One exception, which is sizable geographically but not so sizable in terms of population, is North Dakota where there are a series of problems; otherwise, the District economy continues in my view to be in pretty good shape.

With regard to the national economic situation, I don't think there's any doubt that we're in for two or three slow quarters. I just don't see a way around that. But beyond that, my guess is that the Greenbook forecast is perhaps a bit on the cautious or conservative side. Looking at income and consumer balance sheets, I think consumer spending on nondurables and services will do better as next year progresses and as 1991 unfolds than the Greenbook suggests at the moment. On the inflation situation I've been more optimistic for some time that we would start to see some disinflation or deceleration in the rate of price increases. I must admit, given the statistics over the last quarter or so in consumer prices and in compensation and so forth, that I'm beginning to wonder whether that has been an accurate assessment. I just don't have the sense, looking at that data, that such optimism is quite as justified as it might have been. I do pick up comments occasionally in the District: When you ask business people about inflation, they say it's not a problem; but if you get them to elaborate, what they mean by "not a problem" is that it's continuing at 4 or 5 percent.

CHAIRMAN GREENSPAN. Governor Seger.

MS. SEGER. I have just a couple of comments. First of all, I agree with the Greenbook statement that signs of substantial slackening in the pace of economic expansion have accumulated in recent weeks. I think we're going to get more. I'm particularly concerned about autos; the inventory situation is excessively heavy. I think the days' supply is the highest level for the end of November in more than 10 years, which is quite a significant point I believe. Given that we're going into the next quarter with this tremendous inventory and given the fact that the effectiveness of incentives probably is wearing off, I think we will get much more of the adjustment on the production side than on the side of higher sales. We had the head of and what he and I discussed quite a bit was the impact of the liberalizing of debt terms on car sales some time ago. That is coming back and biting the dealers because individuals who took advantage of those attractive terms earlier now find that they have no equity in the car. They would like to get rid of the clunker--it's 3-1/2 years old--but they can't turn it in because they don't have the [equity] or the downpayment. This apparently is a growing problem. Also, he was talking about the financial health of the dealers. That is one place where interest rates do enter in because the dealers have to pay the floor plan financing on all these cars; that isn't a gratuity from the auto manufacturers. And that's a big part of their cost besides having to rent fields to park the cars in. So I really believe that over the next couple of quarters we're going to see quite a bit of additional bad news from the auto industry; and I don't think it's going to impact just the Seventh District. In fact, some of the announcements of plant closings have involved plants in places like Kansas and Georgia.

MR. BOEHNE. And Delaware.

MS. SEGER. And Delaware. I figured I'd get at least a couple of the Districts!

MR. SYRON. And Massachusetts.

MS. SEGER. I don't want to emphasize this too much. In the area of housing, again, I'm very concerned. As real estate markets have weakened around the country, my realtor friends tell me it's more difficult to move existing homes. And for most people who are buying new homes, the purchase of the new home is contingent upon selling an existing home. Therefore, that is a very major factor in the weakness of new home sales. Again, the signals I get suggest that the real estate markets aren't about to improve dramatically soon, even in the Northeast. Also, I pick up more and more comments about the fragility of the financial system, particularly from business people--people who are not in a commercial bank or an S&L, but who just seem generally nervous about what's going on. And as Dick Syron said, there are more and more suggestions that this ultimately is going to impact the availability of credit, particularly for people who don't have a blue chip credit rating. I was at a real estate conference out in balmy California a couple of weeks ago and there was substantial discussion there of the problems coming from the FIRREA legislation and what it's doing in the way of imposing lending limits on S&Ls. The banks for some time have had limits on the size of loans that can be made to one borrower. But with FIRREA extending that to S&Ls, it has become a big problem for contractors to get financing--at least the same way they used to get it. So, there are a lot of things going on out there that in my judgment indicate that the risks--for sure for the next two quarters--are on the low side, the down side. I hope I'm wrong, but those are my concerns. Thank you.

CHAIRMAN GREENSPAN. President Hoskins.

MR. HOSKINS. For the first three quarters of the year the District really did quite well, as I have reported to you all along. Since that time it has slowed but it's not shrinking at all with the exception, of course, of auto-related activities and some construction-related activities. There hasn't been a major downturn in any of the industries to the extent that it has caused people to say: "We have a major problem on our hands." Services continue to grow in our District. By cities, Cincinnati has relatively strong growth; Columbus is probably next in line; Cleveland is close to being flat; and Pittsburgh is flat. Now, just so that you don't think I have reported this District as being extra strong in order to influence [others toward] my policy position, I had a witness at our last board meeting to hear all the branch directors speak. That witness was the Chairman. I think one might categorize their statements as rather sanguine about the outlook. So, the District may be somewhat peculiar in the sense that to the business community things may seem to be softening a little but not sufficiently to generate major concerns for them.

In terms of the national outlook, I think Mike's guess is as good as anyone else's with respect to the course of the economy and I don't really have any major disagreements with it. My only concern is that we may focus overly on a particular quarterly change. I think that the economy needs room to make those kinds of changes before we do something with respect to policy. I expect variations quarter-by-quarter.

CHAIRMAN GREENSPAN. Vice Chairman.

VICE CHAIRMAN CORRIGAN. My sense of the situation continues to be pretty much in line with Mike's forecast. Looking forward that's probably as respectable a judgment as one can have. It is interesting, though, to think a bit about the situation in the context of a question that Governor Johnson raised earlier, and that is: If you go back to the beginning of the year, the growth of the economy for the year 1989 as a whole will in fact have been very, very close to what we were thinking back in February. I think it's true that the differences in interest rates and exchange rates relative to the outlook then pretty much do cancel each other out. But the question is: If that is true retrospectively, what about prospectively? And I think the signs of greater weakness in the economy right here and now are of more concern than what happened in 1989 as a whole. In looking at the sources of weaknesses in the economy now, we have to try to disentangle the reasons they are there. When you're talking about a difference in growth between 2-1/2 percent and 1-1/2 percent, at least at the margin 1 percent means a lot. But at the margin some of these things have to be kept in context. For example, in both residential and nonresidential construction, we are now paying the price for a lot of overbuilding that took place in the past; and indeed a lot of it was at interest rates a heck of a lot higher than the interest rates we're looking at today or prospectively. There are serious credit problems in this area, both with developers and suppliers. I have a down-home example: the contractor that we've used at the Bank for years. We were about to let a contract when his insurance company wouldn't post bond for him for credit reasons. And this is a company we've done business with for 50 years!

MS. SEGER. Maybe you didn't pay them on time!

VICE CHAIRMAN CORRIGAN. We paid them on time. These problems are quite real. What people are saying about a profit squeeze in the corporate sector is true and it has implications for fixed investment. Why is that? Well, there are a lot of reasons but one is that inflation in wage and compensation costs is still pretty strong; and a second reason is this interest cost. If you look at the corporate sector as a whole and break it down into 3 or 4 digit SIC industry groups, the interest cost running out of all this leveraging clearly is contributing to that problem. Again, in the [auto] sector a lot of things have worked. But I think it's hard to dismiss totally this kind of saturation or structural argument even in a context, as Si Keehn says, in which sales of cars and trucks this year still are going to be over 14-1/2 million units. Now, those are very, very big numbers. Having said that, I do think that in the very short run, which I'll define as the next couple of quarters, the risks are asymmetric on the down side. But on the other hand, if we manage to wiggle through the next couple of quarters, I think the danger is that the risks could then shift in the opposite direction at least to neutral and maybe even to the up side. And that's why I think this period is so tough.

CHAIRMAN GREENSPAN. Governor LaWare.

MR. LAWARE. I continue to be dismayed by the less than sanguine prospects for any progress against inflation in spite of the very low level of economic expansion that we're looking at in the forecast. And I'm increasingly of the feeling that we are on pretty thin ice--that the ice is thin between us and the cold water of some

sort of a recession. I don't think it's a recession that is necessarily going to be triggered or aborted by financial external factors. I'm increasingly concerned that we may get a contraction in the economy here that is driven solely by a collapse of confidence. There are some signs out there that are very worrisome: this whole real estate fungus that is spreading across the country, which is a [unintelligible] of price resistance; the slowness of the markets; and increasing pressures on prices. It's not going to be helped at all by the cranking up of the activities of the RTC. And I think that's now being reflected in the serious concern that the markets are showing for the whole banking sector. It's not just New England banks as a result of the Bank of New England problem; they all took a terrible beating yesterday. It is indicative of this fragility that several have commented on around the table. And when you look at how a slowdown would affect the debt burden that we have in the economy in terms of the flow of revenues and the direct effect on cash flow and the coverage of debt service, it seems to me that you see a snowball beginning to roll downhill that I don't like the looks of. I'm not sure that further ease can do anything to correct this situation, if in fact this confidence factor is as serious as I think it is. But I'm certainly convinced that the risks are on the down side in the environment that we're looking at now. And I'm worried.

CHAIRMAN GREENSPAN. President Melzer.

MR. MELZER. In our District we went through a sluggish period in terms of employment, which I reported, in the second quarter. The third quarter picked up; it was still slow relative to what was happening nationally, but we had employment growth. Interestingly enough, October was particularly strong: 4.3 percent growth in a month, with most of the strength in manufacturing construction and miscellaneous services. I don't think one can read too much into one month but our economy still seems to be [unintelligible]. It's not [unintelligible]. In Missouri, we have the second largest auto concentration behind Michigan. Interestingly enough, autos represent only 1.9 percent of our output in the District versus 1.2 percent nationally. I realize that the business extends more broadly than that, but that is in terms of autos directly. Chrysler has announced a shutdown of its number one plant in Fenton, which produces Daytonas and LaBarons, for a five-week or one-month period rather than the normal one-week shutdown. That's not news; what is interesting to me, anyway, is that people who are idled in this fashion will earn at the lowest levels 65 to 70 percent of their normal wage and the higher seniority people will earn up to 95 percent. So in terms of the impact on income currently, it tends to be minimal. I've also talked from time-to-time about the consumer durables business. We have a fairly heavy concentration of that. And the pattern there was that through midyear billings were up about 5 percent and then in July they fell off quite [sharply]; they were down about 17 percent compared to the prior year. But then for the months of August, September, October and now most recently November, they have been down about 5 percent in each of the months compared to the prior year. So there hasn't been a cumulative deterioration there. One of those manufacturers that I'm aware of is laying people off over the holidays for a longer-than-normal idling period--three to four weeks instead of one. On the retail side, in St. Louis I think the retailers are quite optimistic about the Christmas season. They were running higher inventories intentionally going into the season and

they feel pretty good about the prospects. They don't expect it to be a great year in terms of profits but in terms of buying it should be.

On the national front, I just want to make one comment. I don't think the general outlines of our forecast would be much different from what Mike and his people have developed. I'm certainly struck by the comments I hear around the table in terms of incipient weakness. The only thing I would say is that, in a sense, we anticipated that around this table six or eight months ago. Policy was eased beginning in May; it was eased quite a bit. And in my judgment, whether or not we sweep through this period--or however you put it, Jerry--is going to depend an awful lot on that bet we placed then and not on bets we make right now. I just think we have to keep that in mind. We all see the weakness; but don't forget that it was anticipated and steps were taken; and we do have that other goal that we discussed yesterday that gets jeopardized to the extent that we try to overcompensate.

CHAIRMAN GREENSPAN. Governor Angell.

MR. ANGELL. Well, Tom, it's interesting that you mentioned that. I would make one 30-day correction though; I think several of us wanted to ease in May, but I believe we didn't ease until June. Isn't that correct? Certainly, I was foremost among those wanting to ease at that time because I was looking at what I think are the factors that we have to keep our eyes on: that is, the factors that look ahead, not those that look behind. One of those that looks ahead, of course, is money growth; and at that time we had money growth that was pretty well in the tank after it had been through a rather restrained period. But I do agree with Tom that we have made a correction and that the time for worrying about the fourth quarter and the first quarter was in May and June and July and August. What we're working on now, of course, is the economy in the third quarter of 1990. I must admit that I don't see anything to quibble with in the staff's forecast for the real economy for 1990. I wouldn't know which way to try to [unintelligible] in terms of which way there are errors. Any time we are talking about an outlook for growth as low as the 1.2 percent projected for the first quarter--we all know that any one quarter can go in a surprising direction. But it's important for us to look ahead. As I look ahead, I would note that money growth seems to be falling along an 8 percent path for M2, which is rather significant compared to what we've seen previously. Besides that, it is reflected in auction markets and the auction markets show that we now have more liquidity out there than we had before. It's quite clear in the commodities. Commodities in May clearly were showing that we were in a period of suffering from quite a bit of monetary restraint. And for commodity prices on a year-over-year basis the rate of change was starting downward. But now we are in a period of very, very mixed--and I can say somewhat confusing--commodity price signals. In the industrial sector, clearly in aluminum and steel and copper, we have a significant change from what we have seen previously. But these industrial commodity prices are coming off historically high levels. And it doesn't seem to me that they have weakened so far as to take profit margins into the red for most of those basic metals. Of course, producers don't like it when that has happened. In the food and fiber areas we've had significant runups and with those runups producers of food and fibers continue to have profit margins that are rather ample. That shows up in the price of

land that we get in the Tenth and the Eleventh and the Seventh District surveys. So that sort of offsets some of the others. The price of gold, of course, is somewhat erratic; it's somewhat like the exchange rates and tends to be given to overshooting and undershooting. Nevertheless, that is a rather significant indicator regarding the way people feel about dollars in the future; those who wish to make other kinds of bets would indicate, I think, that our exchange rate messing around in the last three months has contributed to some unease there and I think it's showing. And I think that has even [unintelligible] that active if it nevertheless has been quite accurate in terms of showing some change in sentiment. The foreign exchange market in the last three months certainly has shown that our money growth path changes are reflecting that. No longer do the foreign exchange auction markets show that dollars are somewhat overscarce in the minds of holders of international capital flows.

Now, when I think about the dangers of what might happen--and it's always our job to try to guess and to worry about what might be happening--if the fourth and the first quarters or one of them turn out to be negative, there isn't anything we can do about it. That's already locked in. But if I'm going to worry about what might happen that could really put our economy in a tailspin, I would worry about the occurrence of circumstances in which the foreign exchange value of the dollar could erode rather seriously. I think Jerry was referring to that problem; he referred to it as from time-to-time. Sometimes I worry about it, sometimes I don't. When we have slow money growth compared to the Bundesbank and Japan and other countries then I'm not quite so worried. In circumstances when our monetary growth is no longer slower than the Bundesbank, then it seems to me there's a great deal of vulnerability. If we were to get some significant moves in foreign exchange rates that adversely affected bond prices--unlike so far, when foreign exchange weakness has not spilled over, except sporadically, in the bond market--and we were to have higher rates by lowering rates, it is in the higher rates where it counts. So, I think the vulnerabilities that we have are pretty well locked in. But it seems to me that there's nothing out there that says the third quarter is going to be all that weak. I must admit, Governor Seger, that I think some of the problems that you look at in automobiles may very well slip into the second quarter after a low first quarter. But other than that, I don't see things in the second and third quarters that are showing a need for a great deal of attention. And I do think back to 1980. Of all total benefit/cost analysis of all the policies that [unintelligible] wasted, nothing is so wasted as this short-term [unintelligible]. Two quarters of slow growth followed by a resumption [of rapid growth] are totally wasted as far as price level effects [are concerned]. So we want to be sure not to get too locked up in guiding monetary policy by what's happening in the economy.

CHAIRMAN GREENSPAN. Governor Kelley.

MR. KELLEY. Mr. Chairman, I guess I've learned to think like an economist in one respect: by thinking on the one hand and then on the other hand. On the one hand, it's very clear that we have a weakening economy and it's very clear that a recession is highly undesirable for a whole host of reasons--the fragility that has been mentioned and many other things. That would argue, I think, for an accommodation to buy ourselves a little insurance for next spring, summer and fall. On the other hand, I do have great concern that we

should to the best of our ability ensure that we keep the inflation trend moving in the correct direction. And I think that argues for being a little cautious. Also, in the area of reducing fluctuations around the trend line, that argues for being a little cautious particularly since the aggregates--M2 particularly--show a fairly high level of strength. I definitely share your concern, Governor Angell, about the possible bind we could find ourselves in if the dollar should suddenly go south in a serious way. So, on the one hand and on the other hand, Mr. Chairman, I come out [balanced], which leads me to think that perhaps we ought to keep our cards pretty close to the chest for a while.

MR. JOHNSON. Just about everything has been said. I agree with a lot of it. And some of the recent comments were along the lines of what I was thinking. The economy is currently weak; I don't think there's any doubt about that. And I agree with Tom that it's not totally unanticipated. Some of what we're seeing now is what we knew would be coming down the pike from our tightening actions months ago. So it certainly is not a time for us to panic over what we see now; it shouldn't be a surprise to anyone and there's nothing we can do about it now for these couple of quarters. There is nothing in current policy that is going to alter what we're going to see develop in the next few months. However, financial markets are much more forward looking and much more sensitive to current policy and can certainly turn on a dime on the basis of what they think our current policy means for the future. On that front, I'm somewhat with Governor Angell--my views are not quite as strong as his--in that the current financial market data don't seem to be showing any certain pattern of [striking] concern about the degree of tightness in current policy down the road. The bond market is relatively stable; commodity prices are gradually weakening, I think, although oil keeps bumping those prices around from time-to-time. But I think the trend is clearly down, though not dramatically, in overall commodity prices. It is true that the dollar is weaker on a trade-weighted basis, but I personally tend to dismiss most of that as a result of what's going on in Germany and the fact that they have tightened their policy quite dramatically. The dollar is not really weak against the yen and it's not really weak against the Canadian dollar or pound sterling. But it is weak against the EMS countries and Germany because they have run real interest rates up quite substantially and [unintelligible] also over the east European problem.

But I do agree with some of John LaWare's comments. I sense a sort of snowballing effect in the real estate market that's bothering me. I don't know how negative an effect that's going to have on expectations as home equity values come under pressure and housing prices or other real estate prices decline. But it is on the order of [unintelligible] systemic, I think. I wouldn't go so far as to bet the ranch on that now, but it worries me. And I certainly worry about having a deteriorating situation down the road with a worsening economy and finding ourselves in a mild recession. I'd be willing to face the threat of that if I didn't think inflation was improving some and if we had some flexibility. But I would disagree with those who don't think that there's any improvement on the inflation front or that we haven't made some progress. Certainly the actual inflation data that I've seen over the last six months show an improvement. It's not just food and energy [prices]; the central tendency of this Committee back in July when we made our estimates

[for the Humphrey-Hawkins report] was 5 to 5-1/2 percent on the CPI. Now, with one month left, it looks like it's going to come in around 4-1/2 percent or something like that. It's running 4.7 percent right now. Some of that is an improvement in food and energy prices; but ex-food and energy, there has been progress over the last six months as well--both in producer prices and consumer prices relative to expectations. So actually, I think we do have some flexibility here. I don't think that the market is expecting a whole lot out of the Fed in terms of a further easing. I think we have gained some credibility and the last thing I want to do is to lose that. But the market is expecting some modest easing of policy in a way that fits into our scrooge-like approach to monetary policy in terms of protecting the inflation environment. We're worrying about where the economy is going to be six months down the road and we don't think there's an element of danger of a pickup in inflation or, in fact, inflation has continued to improve. So we're in a position to have some choices; I don't think we're faced with no choices.

CHAIRMAN GREENSPAN. I just checked the fragilities. The [unintelligible] is down 22 so it's [unintelligible]. We don't have very much time for coffee, but let's take a very short break and--

VICE CHAIRMAN CORRIGAN. Have some very cold coffee.

[Coffee break]

MR. KOHN. [Statement--see Appendix.]

CHAIRMAN GREENSPAN. Questions for Don?

MR. HOSKINS. Relative to your projections in September what are the aggregates running? What were you forecasting in September for money growth for this three-month period?

MR. KOHN. I don't know. I can tell you what we were forecasting last time and it's running about 1/2 to 3/4 of a point above that.

MR. HOSKINS. Do you have any feeling as to why it's running above?

MR. KOHN. Well, I think we've had a more vigorous response to the drop in [rates]. I'm sure it's running above what we had forecast in September because we have lower interest rates now than we were forecasting in September.

MR. HOSKINS. Yes.

MR. KOHN. But we don't have lower rates than we were forecasting at the last meeting since we just had that easing. I just think that we didn't factor in quite enough response to that ease--quite enough of a drop in velocity, really, in the current or the next quarter. We got a faster response and a bit stronger response.

CHAIRMAN GREENSPAN. Governor Johnson.

MR. JOHNSON. Would you repeat that?

MR. KOHN. I think we're having a somewhat stronger response to the drop in interest rates in October and November than we had [anticipated].

MR. JOHNSON. Okay. Just looking at the charts that you handed out on real interest rates--it depends on which survey one looks at, but--in the short-term end they really show very modest declines in real interest rates since the peak of our tightening period. And in some of them there is even a recent uptick in real interest rates because of the improvement in inflationary expectations in the short run. If that's the case, one of the worries is that even though the funds rate is lower in [nominal] terms we really haven't eased policy recently. We are down from the peaks, I think, but not by very much.

MR. KOHN. Well, that's the way I would read it, Governor Johnson--that is, I think we are off the peaks. And that is sort of confirmed in the long-term real interest rate. I think real rates have come down a little but not a whole lot. I would ignore those little dips there in what looks like the spring of 1989 because I think that was a surge in inflation expectations associated with food and energy rather than some underlying factor. I think the Committee has eased policy since February; real rates have come down but [not] as much as nominal rates. The more difficult question is: Where are they relative to some equilibrium level? I never thought that rates were that high relative to the equilibrium level, so my guess would be that we've come down a bit but probably not that far from where we ought to be. Looking at the long-term rates, including the measurement we did for the Committee a year or so ago on the corporate bond rate and how that lines up with our estimated equilibrium real rate, we're very close--about 20 basis points below.

MR. JOHNSON. Okay, thank you.

CHAIRMAN GREENSPAN. Any other questions for Don?

MR. HOSKINS. Just one more. It's my usual fragility question, Don. Aren't all the rates you've shown in all the alternatives, carried out, consistent with perhaps some acceleration in inflation over time rather than--?

MR. KOHN. Well, no. Do you mean money growth rates?

MR. HOSKINS. Yes.

MR. KOHN. No, I wouldn't say that. Yes, if you carried the 8 percent rate out--I'm not sure I understand the question.

MR. HOSKINS. No, you understand the question. The question is if we were to continue at these current rates--

MR. KOHN. I agree. If you were to carry 8 percent money growth through '90 and into '91--

MR. HOSKINS. Into '90 we'll have a problem.

MR. KOHN. Yes, I agree.

MR. HOSKINS. But without raising interest rates you expect [growth] to slow to 6 percent?

MR. KOHN. That's correct. At current levels of interest rates, I expect growth on the order of 6 percent for the year as the effects of the previous [rate] declines wear off.

MR. ANGELL. At this stage how much does every 50 basis points do to the [expectation of] 6 percent in 1990?

MR. KOHN. It gets you about 1/2 point. For Q4 over Q4 we're at a stage where 50 basis points will get you about 1/2 point; 50 basis points now would get you--

MR. ANGELL. So a decline of 50 basis points would take it up to 6-1/2 percent?

MR. KOHN. Approximately 6-1/2 percent.

CHAIRMAN GREENSPAN. Any other questions? If not, let me start off. The meeting yesterday very clearly indicated that if we're going to get down to a low enough inflation rate to satisfy this Committee at some point in the next two or three years we are going to have to engage in some tightening. By that I mean we are going to have to bring the growth rate of M2 down, focused at--I don't know where the number is. The question also in the context of the political discussion we had is: When is that feasible? Well, if you focus from here on, it strikes me that the best path of getting that [M2 growth] rate down is some time--in fact, it already would have been embodied in the Greenbook at the stage in 1991 where we really begin to put some tightening on. A necessary condition, politically, for people arguing to do that is that we skim through this particular period without going into the ditch. Because if we could come through this period even with a mild recession, or preferably none whatever, I think the credibility of the institution would be such by the fall of 1990 that we could probably write our own policy ticket in that respect. As a consequence, though, I would very much focus on what our short-term actions are and whether in fact we will be able to work our way through this period without cracking up somewhere along the line. The evidence as of now is that in the manufacturing area orders continue to drift lower; unfilled orders are declining; there are actually very few production cutbacks with the exception of autos and direct auto-related areas and some elements in the capital goods markets. But there is no cumulative activity going on around these. The structure of the economy has not been cracked. It is undergoing increasing downward pressure as profit margins weaken. And autos have become a fairly [unintelligible] force. The failure of new residential construction to move with the decline in mortgage rates suggests to me that housing is essentially flat out there. Also pressing, but not unduly pressing, are the issues that Mike Prell called the sort of non-GNP inventory levels: the stock of autos, the stock of housing, and the stock of commercial buildings, all of which are one step back in feeding into the GNP.

If it were true that short-term interest rates or interest rates generally at this particular stage have very little effect on the next three to six months I would say there's very little we can do about it. The truth of the matter is that I don't believe that for a

minute. I do think that there is a significant longer-term impact from interest rates; but I don't see that monetary policy has no effect in the short run. The reason I say that is--well, there really are two questions. One is: How secure are we as far as activity is concerned in, say, the [spring and] forward? And I would say that we do have a forward indicator and that's largely unfilled orders. To the extent that unfilled orders continue to decline, that suggests to me that we do need something of a prop--more than we are going to be getting under existing monetary policy for say May, June, July, September. But I also believe that there is a distributed lag effect in monetary policy in which you do get, largely through the financial system, short-term effects. There is a very clear relationship between interest rates, Fed policy, the stock market, and real estate values. And to the extent that one shares some of Governor LaWare's concerns about confidence, there is a confidence element in here in which the lead times are not six months; they are often weeks to a month or two. In that time one can see new orders falling very quickly under financial stress; and the feedback is very dramatic. I remember sitting through 1974. Now, if somebody's going to tell me there was a long lead time between the period there in the fall and the period of February 1975, I will tell you that it went by so fast that you couldn't see it. I think it's a mistake to presume that monetary policy has no short-term effect. I don't deny that most of the effect works its way out in various different forms of distributed lags. But in this type of environment I'm not sure that is correct.

In any event, where I come out is that at a minimum I think we should be significantly asymmetrical toward ease. I would much prefer, however, to go to \$125 million on borrowings, which is somewhere between "A" and "B," and the equivalent of about 25 basis points at this meeting. Vice Chairman, do you want to pick up?

VICE CHAIRMAN CORRIGAN. Yes. Let me--

CHAIRMAN GREENSPAN. I'd like to say one more thing. After that I would stay symmetrical if there is an agreement on that.

VICE CHAIRMAN CORRIGAN. Let me just say a quick word on this financial fragility issue. I say with some confidence that I'm probably as sensitive to that as anybody in the room, but I think we've got to keep that in some perspective. First, where does it come from? I think there are two basic sources: one is the macroeconomic imbalances that we've been living with for a long time that fundamentally reflect the policy mix problem; and the second source of it is what we have to regard as excesses, or maybe even outright speculation, in large segments of the financial markets and in important segments in the real economy, including the nonfinancial corporate sector and the real estate sector. Obviously, we have to be sensitive to that fragility even though we may not like its causes. But I think we've got to be extremely careful not to sanction it because of its causes. So sensitive, yes; but sanction, no.

In terms of policy, I see three options and they're not "A," "B," and "C" in Bluebook terms. Basically they are: first, to keep an asymmetric--perhaps a strongly asymmetric--directive and do nothing right now; second, to do something like what the Chairman just said, which essentially would mean moving 1/4 point on the funds rate or \$125 million on borrowing while keeping an asymmetric directive; and

third, to do the quarter point on the funds rate and the corresponding borrowing adjustment now but go back to a symmetric directive.

CHAIRMAN GREENSPAN. Jerry, I was going [toward the third]--

VICE CHAIRMAN CORRIGAN. Okay. Well, I myself would come out in my own camp three. In other words, I'd take the borrowings down a notch right now, take the funds rate down a notch right now, and have a symmetric directive going forward. The fundamental reason why I would do that I would translate in terms of what I earlier called the wiggle factor--trying to kind of wiggle through this period. But in doing that, I would not in any way want to associate myself with some other statements that have been made that might suggest coming out the same place but for different reasons. I am not terribly uncomfortable with where we are and I do think that looking further out the risks could change. So, I'd say get this move behind us; do it right here today at the Committee meeting and accompany it with a symmetric directive going forward. Thank you.

CHAIRMAN GREENSPAN. President Boehne.

MR. BOEHNE. I think it is a close call today. There are the downside risks and the financial fragility risks that argue for some additional insurance. However, I come down on the side of continuing the existing directive with no change now and asymmetrical in a downward direction. I come out that way essentially because we have what we set out to achieve--a slower economy--and we ought to try now to realize some of the anti-inflationary benefits that come from that and set the stage for further anti-inflationary benefits down the road. I think the wisest statement that's been made this morning is the one by Governor Angell when he said that it's a very wasteful experience to have a couple of slow quarters and then accelerate out of it. And I think we're in danger of doing that. We have a fairly rapid growth in M2; it's rapid as far out as we're projecting it into 1990. I think the risks are that we're going to come out in the spring faster than we would like and be in a position then of having to clamp down at the worst time, politically and economically. And we will have wasted what we've done. So, I think we ought to take some of the risks that go with this downside risk. If we have to ease, let's ease; but let's wait until there's a strong case to do it.

CHAIRMAN GREENSPAN. Governor Angell.

MR. ANGELL. Yes, Mr. Chairman. I do agree with you that there is some short-run impact of monetary policy. That is, I do believe that the second-quarter numbers can be impacted rather slightly because those actually are the months that really fit in there--and really [also] the month of March even though it's in the first quarter because it still affects how that first quarter ends. So, in the months of March, April, and May--sure, there will be some impact. But my view is that what we ought to look at here is not a sacrifice ratio or sacrifice index; we ought to look at a benefits index. And the benefit index is just too, too small. That is, we benefit so slightly compared to what it costs in terms of inflation. I remember the 1986 experience in which it actually ended up that one quarter was negative and the next quarter was positive; the third quarter was positive just the same amount the second was negative and we ended up getting zero. But the rate of inflation was down low

enough that coming out of that was not letting the [unintelligible] in, and going by that I think was the proper thing to have done. But we came out of that with an inflation rate that had some room. It was down 1 percent. Now, 1986 was an unusual year; that was an aberration in terms of the oil price factor. Nevertheless, there were some possibilities of it not being so high. If we go through a two-quarter slowdown and there's not a recession and we come out of it with the rate of inflation where the staff have it forecast and then we have to turn around in the fall of 1990 or a year from now and tighten or if we have to turn around and tighten in the summer, that's when it's tough. When you think about the yield curve and the bond rates, what happens is that all of a sudden you get expectations that are changed. The long bond doesn't just represent inflation expectations; it also represents expectations as to Fed policy. And when we shift from easing to tightening we have a real tough deal to play. If this is not a political window, then I don't see how that's a political window, because it really is going to be tough to make that turnaround.

CHAIRMAN GREENSPAN. Can I just comment? We're talking about very small changes. To go back to 1980: I have forgotten the funds rate; I don't know how many points of that drop in the--

MR. ANGELL. Well, the funds rate came down from 9 percent to 5 percent.

CHAIRMAN GREENSPAN. Oh, I don't know; it was more than that.

MR. PARRY. It got as high as 13 percent.

CHAIRMAN GREENSPAN. 13 percent in what--?

MR. PRELL. In 1980.

MR. ANGELL. Oh yes, 1980.

VICE CHAIRMAN CORRIGAN. That's about 1986--

CHAIRMAN GREENSPAN. No, he was originally talking about 1980. What I'm trying to say is that if you look at the funds rate pattern and the borrowing pattern that we've been through here, they don't show in the chart. We used to get the sort of thing that you're talking about; what we've been doing is this--

MR. ANGELL. Yes, I recognize that M2 growth isn't going to go to 32 percent like it did in 1980. But I'm not suggesting that. What I am suggesting is that the benefit for the second quarter is so small and the benefit for the third quarter is not all that large. What I see is that the financial markets and commodity markets and foreign exchange markets are rather fragile right now. And I think we send an attitudinally wrong signal by this small step at this point in time. I point out to you that the long bond really has been stuck in this 7.85 to 7.95 percent region and the last [unintelligible] basis points in the fed funds rate has not been accompanied by a [unintelligible] bond yield. I'm saying that by being patient now and by waiting, we may very well get a climate in which these market expectations will be more favorable. I'm not suggesting that I would not at any point in time next year be in favor of further adjustment.

But I would rather the bond markets lead us rather than take the chance now that if we make this move and the bond market, like the last two times, signals something else. That means it doesn't help. Housing starts are the key to any soft landing scenario. And we must let the long bond yield lead us. That's why I think this little bitty move is worth my resistance.

CHAIRMAN GREENSPAN. President Forrestal.

MR. FORRESTAL. Mr. Chairman, we all certainly agree that we started off on this path some time ago to bring economic activity down to a lower level so that we could get some gains in inflation. If I thought that we could remain at this point with the inflation gains--and as Governor Johnson just indicated we have made some gains on inflation--and keep on this path and slowly whittle away at the inflation rate, I'd be in favor of staying where we are. But my concern is that the economy is going to deteriorate. Everything that I see out there and everything I hear suggests to me that the risk is that we will fall into a recession. I think even a mild recession is going to make our lives very, very difficult. I would make the argument, contrary to the one that we just heard, that if we go into this period over the next few months and we have a downturn in the economy, then we're going to have to ease further. And I think that is going to make our lives difficult in terms of inflation. It is going to produce an acceleration of inflation and the timetable for achieving price stability is going to be put off by some period of time. So, I'm concerned about the risks. I continue to be concerned about inflation and I certainly don't want to give up on that fight. But I think we'd be making a mistake now if we did not have a mild decrease in the funds rate. I agree with you, Mr. Chairman, for all the other reasons you gave that confidence and the position of the financial markets are very important. I think we've got a political window here to do it. I'm afraid if we don't do it and the economy deteriorates, we're going to be in serious trouble not only economically but politically as well.

CHAIRMAN GREENSPAN. President Parry.

MR. PARRY. Mr. Chairman, I basically would like to associate my views with those of President Boehne. Clearly, the economy has slowed substantially this quarter but there are temporary factors involved such as Boeing. And it seems to me quite conceivable that over the next few quarters economic growth could turn out to be somewhat [higher] than that incorporated in the Greenbook, although clearly it would be moderate. It seems to me, though, that a moderate pace of output growth is essential to lower the risk of an acceleration in underlying inflation and to begin to make some progress toward price stability. Thus, I would support an unchanged policy stance at this point.

CHAIRMAN GREENSPAN. Asymmetric toward ease? What do you want?

MR. PARRY. I can accept asymmetric; it isn't my first choice, but I can accept it.

CHAIRMAN GREENSPAN. President Syron.

MR. SYRON. As many people have said here, it's very hard to judge the risks on one side or the other. Mike Kelley's comment about his becoming a two-handed economist is appropriate here. But even though the risks are fairly well balanced, we can't avoid the fact that this is a very high stakes game that we're in, particularly at this point. The point that you made in terms of when we get a window is well taken as is the point that these changes that we're talking about are minute enough--minute may not be the right word, but they're not so gigantic that they're likely to have dramatically different costs in the longer run. So in that circumstance, I prefer taking out a little insurance in the sense of protection on the financial fragilities side and the economy going down. I would be comfortable with the 25 basis points but--and I think this is an important distinction--with symmetrical language. I have one last point: Another factor that weighs into this is that I strongly prefer taking the action, as Jerry said, at today's meeting. Now is the time to do it.

CHAIRMAN GREENSPAN. President Stern.

MR. STERN. Well, Mr. Chairman, I think you have made the case for taking some action now. What troubles me about it is that I think if we do take that action, it's going to make our job more difficult as 1990 rolls along in terms of bringing in M2 growth about where we'd like it to be--at a rate of growth consistent with our attainment of our longer-run objective. Weighing those factors and acknowledging that it's a difficult choice, I come out on the side of not taking any action now and going with an asymmetric directive even more strongly; a symmetric directive I can certainly live with. But knowing what I can see about 1990 and the trajectory that M2 has been on and so forth, I just don't think that this is a circumstance where I'd want to push further.

CHAIRMAN GREENSPAN. President Keehn.

MR. KEEHN. Mr. Chairman, I completely agree with your recommendation to make the move now. It seems to me that we have been moving in a pattern for the last several months and that it has been an appropriate way of dealing with the economy as it has been changing. Therefore, to make another move now would be important and I think that we should do so. It seems to me that the risks are clearly on the down side. I'm not quite sure what kind of an immediate impact we will get, but certainly at the margin it has to be a plus rather than a minus. I would move the rate down and then would return the directive to symmetric language.

CHAIRMAN GREENSPAN. President Guffey.

MR. GUFFEY. Thank you, Mr. Chairman. I came into this meeting with the thought of retaining policy about where we are now with an asymmetric directive. But I could accept your proposal--that is, coming down a 1/4 point now with a symmetric directive in the period ahead. I'm not too opposed to giving the nation a little Christmas present, which is not necessarily--

VICE CHAIRMAN CORRIGAN. To you.

SPEAKER(?). The reputation of your Bank.

MR. BLACK. You don't think you're sending a false impression for later years do you?

CHAIRMAN GREENSPAN. I appreciate that because if not, I probably would be out on a limb.

MR. ANGELL. It is a Christmas present but it's a Trojan horse.

MR. SYRON. [Not] unless the door opens.

CHAIRMAN GREENSPAN. We better continue. Governor Seger.

MS. SEGER. I would support your suggestion of an immediate cut in the fed funds rate; in fact, I could even go for 50 basis points, but I won't be a hog and I'll settle for 25. As I said earlier, I think the risks are on the down side. I don't see where the strength of the economy is coming from in the next two quarters, and beyond that I'm not sure what's going to provide the impetus for an uptick. I'm very concerned about the financial fragility; I'm very concerned that so many people in the business world are sensitive to it. It's one thing for me to be and it's another for them to factor that into their decisions. And I do believe that lower interest rates would have an impact on the economy before six or nine months go by, even though it probably takes that long to get the full impact. I think you would get some impact, particularly on the psychological side. So that's my vote.

CHAIRMAN GREENSPAN. President Melzer.

MR. MELZER. I come out essentially where Ed Boehne did. Let me add another thought or two here. One is that I don't think we have a lot of opportunities left to ease. Now, that could be proven wrong. What I would tend to look at in that regard is if the demand for money is falling out of bed and we're pegging the funds rate, we better pay attention to that. So even though I don't favor easing now, I don't rule out the possibility that that may become necessary down the road. But the way I see things now, we don't have many opportunities; I think perhaps you're implying that by moving to symmetric language. But as things have progressed, I think it was quite appropriate earlier on to try to stay ahead of the situation, to anticipate and then move in advance. I think in a sense we're probably beyond that now. I don't have the impression that markets are expecting us to do anything and I think pressures will develop. I know there are expectations over time that the funds rate will come down, but I don't have the sense that people looking at it right now in general would conclude that the Fed really ought to do something right now. And given the view that we have very few opportunities left in this direction, I would tend to conserve them and not use an opportunity now. Beyond that, my view is based on some comments I've made before. I think we have made a significant adjustment in policy; I think the aggregates are growing now at rates consistent with continued expansion; and I'm concerned that a move in this direction at this time would make our [unintelligible] in terms of price stability.

CHAIRMAN GREENSPAN. Governor Kelley.

MR. KELLEY. Mr. Chairman, I could be comfortable going in either of the two directions that have been suggested in this conversation. As I look at the sack of apples and the sack of oranges, they weigh about the same on the scale. My head tells me to hold fire and not change now, but my tummy tells me that the economy needs, and can get, a confidence boost if we do a small move now. So, I come down on the side of concurring with your suggestion.

CHAIRMAN GREENSPAN. President Boykin.

MR. BOYKIN. I would concur with your formulation, Mr. Chairman. One thing strikes me. I don't know whether it will hang together or not but I almost have the sense, tactically speaking, that the modest move that is being recommended right now probably puts us in a better position to resist a stronger move later on, because at least we could show that we had been responsive. If, in our judgment down the road, it really isn't the time to move, I think we're better positioned to resist that at that point.

VICE CHAIRMAN CORRIGAN. Bob, that was part of what I meant by my wiggle factor.

MR. BOYKIN. Okay.

CHAIRMAN GREENSPAN. President Hoskins.

MR. HOSKINS. Listening to the comments, it seems to me that in some cases we have forgotten yesterday's meeting. It's like micro and macroeconomics; they don't seem to be linked up, at least in the text books. So, I'd like to start where I think we left off yesterday with regard to the comments around the table when we talked about price stability. There are some who want zero inflation and there are others who want one or two percent inflation. And I don't see us moving in that direction with the current recommendation on the table. Our goal is a long-run goal to provide price stability. I think policy is a long-term instrument to achieve that. We know the economists and policymakers can consistently predict business cycles. We look at the forecast; we have no recession now in the forecast and I don't see any reason to second guess that. What disturbs me a little is that to some extent we're following the same mechanisms that we followed [unintelligible] absolutely have to react on the other side. Now, maybe we're a better body than those people who made policy then, or maybe we've learned some more and we can continue to use that mechanism but do it better. I think that's what people are trying to argue around here. I'm not so confident that we can do that. With respect to the political issue, I look back five years and we've had five years of what I would call stabilizing the inflation rate. Certainly during that period there must have been some windows of political opportunity to move down and yet we have not done that in terms of the inflation rate. I think it's important to recognize the growth rates in money. Somebody like Ed Boehne recognizes [unintelligible] hasn't been out hammering out money continuously. I take note of that. I just don't see the political argument as persuasive; I think it has as many traps and pitfalls for us as it has at any other time. I find all the growth rates a little too high in any of the alternatives. But if I were to [choose], my recommendation would be for alternative "C."

CHAIRMAN GREENSPAN. Governor LaWare.

MR. LAWARE. My initial inclination, Mr. Chairman, had been to go for "B" with a revision in that arcane language that would tilt it even more heavily toward ease. My thought was that there may not be a compelling argument for an immediate signal but that we ought to have plenty of room to move if in fact some of the things that I was worried about [materialize]--if the ice begins to crack. I guess I am willing to go along with the immediate move, with the idea that the signal may be important. But I'm concerned that symmetrical language may in fact tie our hands too much if the ice is caving away under us. I think we may need room to move even further over a period of time.

CHAIRMAN GREENSPAN. The only hands that are tied, frankly, are mine and Peter's. We have a telephone out there that hopefully works.

MR. LAWARE. Yes, I accept the technology correction. I will support, then, the recommendation of 1/4 point and symmetric language. See, I cave in so easily!

CHAIRMAN GREENSPAN. President Black.

MR. BLACK. Mr. Chairman, I think it's a close call today. I have a marginal preference for staying right where we are because of very strong growth in M2. I have enough faith in the past to believe that the secular velocity of M2 is likely to remain pretty stable, and along the lines that Lee and Don were discussing awhile ago, that means somewhere along the way that growth is going to have to be slowed down. At the same time, I see less inflation out there than most people do right now. And I think interest rates are likely to be lower as we go along than most people seem to feel. So, I could live with your recommendation. If I were voting I would go with you on that, although I have a slight marginal preference for not making a change.

CHAIRMAN GREENSPAN. Governor Johnson.

MR. JOHNSON. Listening to the tone of the conversation, my view is close to what I hear others saying. It's a close call. I don't think there's an overwhelming case to ease; and I think the people who have made a case for staying asymmetric are making reasonable points as well. But I certainly tilt toward the Chairman's view and I can support his recommendation for a couple of reasons, which I want to emphasize again. First, I guess I'm a little more optimistic about what we've achieved and where we're heading on the inflation environment. I don't see us making a trade-off here at all. As I've said, I think we have the flexibility and I referred back to the charts from yesterday that showed long-term inflationary expectations almost consistently trending down over the 1980s and continuing to trend down to the point where they actually have been lower than the near-term inflation expectations. I don't see this kind of move endangering that trend in long-term inflationary expectations at all. In fact, I refer back to the charts on short-term real interest rates that were just handed out today a few minutes ago and I'm a little concerned that real interest rates aren't really lower. We really haven't eased much in any relative sense for several months. So, I think it's riskless; as a matter of fact, I think it's

prudent to offset what I fear is a growing concern in the financial markets. I agree with the Chairman that policy can be transmitted in the very short-run sense in terms of financial markets and the expectations for orders and things like that. But of course I was referring to GNP performance, which has a long lag. But obviously we can set the gears in motion very quickly, which I think is important to do. I think the economy and the financial system need something to be a little more optimistic about and this could be useful. I don't think it threatens any long-term inflationary trend or expectations. If I did, I really wouldn't be for it although I can understand those people who are concerned that it might. It's one of those close calls.

CHAIRMAN GREENSPAN. I must say you could actually throw a blanket over this whole group and the differences really are quite marginal. The discussions are within a remarkably narrow range, but forceful nonetheless.

MR. BLACK. And deeply felt.

CHAIRMAN GREENSPAN. Yes. What I would propose for an official vote is somewhere between "A" and "B"--that is, the \$125 million borrowing and a 25 basis point drop in the funds rate with symmetrical language. While it would not be in the directive, I think it would be desirable if we had a telephone conference somewhere in the middle of this period, which is inordinately long. It's seven weeks before the next meeting and I think it would not be inappropriate for us to check in with each other to see whether we're seeing any different--

MR. ANGELL. Mr. Chairman, I have one suggestion that I'd raise for the Committee's consideration in the language in the operational paragraph. It says "taking account of progress toward price stability" and I think it's nice to leave that number one. But I would move "the behavior of the monetary aggregates" into second place, which would be an indication as to why we've gone symmetric. It would be an indication that we will be concerned about M2 being above the 3 to 7 percent range that we adopted tentatively. And we know that right now we're guaranteed that we're going to be above it.

CHAIRMAN GREENSPAN. Well, that's not exactly correct. Our models say that.

MR. ANGELL. Okay.

CHAIRMAN GREENSPAN. But the guarantee is something else.

MR. ANGELL. All right, I'm sorry. You're correct. But I would suggest that moving that up would be a good reason as to why we went to symmetric language.

CHAIRMAN GREENSPAN. You're recommending that we switch the phrases "the behavior of the monetary aggregates" and "the strength of the business expansion"?

MR. ANGELL. Yes.

MR. BLACK. I agree with that, Mr. Chairman.

CHAIRMAN GREENSPAN. Can I hear general views of members out there?

MR. BLACK. The last time you suggested that we submit ideas on rewording the directive that was the one we submitted and it was rejected.

CHAIRMAN GREENSPAN. Yes, that turned out inconclusive.

MR. BLACK. I strongly support Governor Angell on that point.

MR. KELLEY. May I make an alternative suggestion, Mr. Chairman? I've heard a lot of discussion that I think was important today and yesterday in the area of foreign exchange and domestic financial markets as well. I'm hard pressed to know what the order of these ought to be. And it strikes me that if there's merit in that, one thing we might do is insert the word "equal" in line 63 before "taking account"--that is, "taking equal account of the progress toward price stability" and so forth.

MR. PARRY. Well, that's likely to cause problems.

CHAIRMAN GREENSPAN. That's a really fundamental change.

MR. PARRY. I would not do that.

MR. HOSKINS. I would support Governor Angell's.

CHAIRMAN GREENSPAN. If we look at the multiple choices we have here, you recognize that we could be here 'til 4:00 p.m. this afternoon!

MR. BLACK. At least!

CHAIRMAN GREENSPAN. I suggest that we have a formal vote on the specific proposal if you can get a second.

MR. SYRON. I second.

CHAIRMAN GREENSPAN. Okay, there's a second. Let's poll.

VICE CHAIRMAN CORRIGAN. Can I just make one other comment, which is consistent with parliamentary procedure here? Harking back to your comment about throwing blankets, I'm not quite sure that I would go as far as you did. The way I heard the discussion here in terms of people's first preferences--

CHAIRMAN GREENSPAN. We're not voting on the directive yet; we're just voting on the language.

VICE CHAIRMAN CORRIGAN. Oh, okay.

MR. JOHNSON. Can I mention one thing?

VICE CHAIRMAN CORRIGAN. This is relevant, though.

CHAIRMAN GREENSPAN. Go ahead.

VICE CHAIRMAN CORRIGAN. In terms of people's first preferences, the way I counted it you had a 10 to 8 vote among the group as a whole.

CHAIRMAN GREENSPAN. You're talking about the voting members?

VICE CHAIRMAN CORRIGAN. No, the 18 participants.

CHAIRMAN GREENSPAN. Yes.

VICE CHAIRMAN CORRIGAN. And in terms of whether we ease policy now or don't, there were several people whose first preference was not to ease but who said they could agree with easing now. So I'm not sure that the blanket is as all encompassing as your early comment would suggest.

CHAIRMAN GREENSPAN. No, I think the blanket is that all of us are within the position of unchanged to slight ease, not on the slight ease.

VICE CHAIRMAN CORRIGAN. Well, that's the point I wanted to emphasize. Leaving aside the specific language here, I think the staff should make sure that the policy record is consistent with that view because I would not want to associate myself with anything that had any connotation of a rush to a further easing of monetary policy.

CHAIRMAN GREENSPAN. Oh no, on the contrary. I would say that--

VICE CHAIRMAN CORRIGAN. I just wanted to make sure that that's [clear].

MR. ANGELL. Jerry, do you support moving the monetary aggregates [phrase]?

VICE CHAIRMAN CORRIGAN. Yes.

MR. BOEHNE. Mr. Chairman, I have no problem with what Governor Angell suggested. I do caution you, however, that if you want to make this an official vote, that official vote is going to be in the record. I just wonder if this is the sort of thing that we want to have a record of dissents.

CHAIRMAN GREENSPAN. I think that is correct.

MR. BOEHNE. I wonder if you might just want to have a straw vote.

MR. JOHNSON. What you're proposing is to move the monetary aggregates to number two?

MR. ANGELL. Yes.

MR. JOHNSON. After price stability?

CHAIRMAN GREENSPAN. [Returning to Ed Boehne's point], I'm not certain that that has to be. Remember, this is basically an amendment to the directive and the directive is what is being voted

on. I would like to ask Don Kohn whether, in his judgment, a vote on the amendment is required to be recorded in this regard?

MR. KOHN. I'm afraid I don't know, Mr. Chairman.

SPEAKER(?). Virgil [our General Counsel] is back there.

MR. ANGELL. Why don't we just have a show of hands of the voting members?

SPEAKER(?). Right.

CHAIRMAN GREENSPAN. How does he know it's not legal? What is your opinion?

MR. MATTINGLY. I think if you follow Robert's Rules of Order, it would be something that has to be recorded.

MR. MELZER. Could I make one other comment?

VICE CHAIRMAN CORRIGAN. But we've done these things many, many, times.

MR. KOHN. We've had two [unintelligible] without recording them.

MR. BLACK. We have not followed Robert's Rules in the past.

VICE CHAIRMAN CORRIGAN. He doesn't work here!

CHAIRMAN GREENSPAN. Governor Johnson wants to comment-- Robert's Rules to the contrary notwithstanding.

MR. JOHNSON. I don't mean to muddy the waters further on this language but there's one thing that bothers me about moving the monetary aggregates to second. I can support it but--and this may sound too complicated but it's important to me--I'm a little worried about emphasizing the monetary aggregates in the very short run if we're basically picking up the opportunity cost effects of changes in interest rates. In other words, I could live with emphasizing the monetary aggregates if it's in the context of something like long-term monetary aggregate trends relative to our price stability goal. But I don't want someone to get the impression out there that M2 for one quarter growing above target because of the interest sensitivity effects is going to be something that the markets should panic over. So, to me there's a big difference between the short-run and the longer-term trend in the monetary aggregates.

CHAIRMAN GREENSPAN. Let me suggest what we are really voting for. On the one hand, we're voting to move the monetary aggregates up one slot. The alternative, which would be there in any event, is the awareness and the concern of the Committee about the growth in the monetary aggregates. Unless I'm mistaken that's what I've been hearing for two days. And I would say [unintelligible] represents the concern of the Committee. Is that a fair statement?

MR. ANGELL. That's it.

CHAIRMAN GREENSPAN. So we can do it either way. Roger.

MR. GUFFEY. I would not support moving it up, particularly at this time. I agree with what Manley Johnson said about moving it up for visibility purposes at a time when we have a [unintelligible] and it will be known that the aggregates are growing above our projected target for them. It seems to me it's an inappropriate time. I don't mind putting a bit more emphasis on the aggregates, but I don't think now is the time to do it.

MR. SYRON. But Roger, to get back to Jerry's point, it does tend to make this show how close a call this was and the concern--

CHAIRMAN GREENSPAN. But that could be handled in the language in the policy record. Either way I think it's fairly clear where the conversation of the last two days has been; that issue can be captured in either place because it is factually the case. It's a question of how one wishes to capture it best.

MR. JOHNSON. Just as long as that issue is there so people could see that and not overreact to--

SPEAKER(?). Sure.

MR. MELZER. I would prefer to capture it in the description of the discussion myself. To the extent that we can wean ourselves from moving these things around and having people draw up charts showing which one we put first, second, third, and fourth the better off we're going to be, I think.

CHAIRMAN GREENSPAN. I would agree with that.

MR. MELZER. If we just leave them alone people will ignore them over time and I think they should. I think the rest of the policy record captures the sense of the discussion.

MR. HOSKINS. I would agree with that if we get the order right.

MR. MELZER. The second point is we--

MR. ANGELL. Mr. Chairman, I really think I'm going to request that we do have a recorded vote because I think it will be a precedent in history for--

CHAIRMAN GREENSPAN. That just eliminated it.

MR. STERN. [This] might help Manley a little. I think M2 ran for almost two quarters earlier this year at the bottom end of, if not outside, the range; I can't remember exactly. And I don't think the market overreacted to that in the sense that we were going to force the aggregates back in at the same time we were raising interest rates. It was clear we weren't intending to do it. I think they had the aggregates back a little further even than we did.

MR. JOHNSON. But did we have the monetary aggregates number two [in the directive language] during that weakness? I'm saying moving it makes it--. These people focus on every little twist in the

directive and if they see we've changed the order of the phrase on the aggregates they're going to say we're focusing short term on where those aggregates are. And they're going to say we've moved the economy back in the order so we're going to put our concern in the short run on stabilizing the monetary aggregates over our concern about the economy. If we get that message across that it's the long-run trend in monetary aggregates that we're concerned about that's just fine with me.

CHAIRMAN GREENSPAN. I think that's the right way to do it.

MR. ANGELL. Yes.

CHAIRMAN GREENSPAN. It strikes me--

MR. HOSKINS. Put the word "long-term" in there, then.

MR. ANGELL. Yes.

VICE CHAIRMAN CORRIGAN. You guys are going to get me changing my vote the way you're going here!

MR. JOHNSON. We can capture it in the policy record, I think. It's fine as long as it's spelled out clearly. But I'm just worried about people saying: "Hey, the Fed decided to chase the monetary aggregates over the economy in the near term."

VICE CHAIRMAN CORRIGAN. You're the one who is always advocating the financial variables. Which way do you want it?

MR. JOHNSON. Not the aggregates. I've never said anything about the aggregates.

VICE CHAIRMAN CORRIGAN. I seem to remember a relevant comment the other day in that speech of yours.

MR. JOHNSON. If you can find it show it to me.

VICE CHAIRMAN CORRIGAN. I will.

MR. ANGELL. Well, why don't we just have a show of hands? Clearly, if the majority wishes to go one way--

VICE CHAIRMAN CORRIGAN. I prefer to put it in the record of the discussion. What's at issue here to me is a heck of a lot more important than the aggregates per se. We have a razor thin situation that we're looking at and I think that has to be duly and adequately and accurately reflected in the proceedings of this meeting.

CHAIRMAN GREENSPAN. I think that's correct.
[Unintelligible] than how it appears here.

MR. ANGELL. We need both.

CHAIRMAN GREENSPAN. Well, this is not a big deal one way or the other.

MR. ANGELL. Sure.

MR. JOHNSON. Let me say that I'm confident we can capture my concerns in the policy record, so that's okay with me.

VICE CHAIRMAN CORRIGAN. I'm not worried about your concerns being captured, I'm worried about mine.

MR. JOHNSON. What's standing is a vote on the aggregates right now as number two. And I--

CHAIRMAN GREENSPAN. No. I think it's basically that if there's a general view, it's crucially important that the policy record captures this general discussion.

MR. ANGELL. Yes, right.

CHAIRMAN GREENSPAN. The secondary question is whether in addition we put this in the directive. Can I have the voting members just indicate whether they are in favor of reversing the pattern by raising their hands?

VICE CHAIRMAN CORRIGAN. I really don't care as long as the other matter is taken care of.

CHAIRMAN GREENSPAN. I'm afraid that that fails. So, why don't we make certain that the language is acceptable to everyone here? In fact, if you want, we can have a poll again and maybe we can satisfy you. If the three of you would like to have a resurvey of this, we can do that.

MR. ANGELL. No.

MR. BLACK. There are some other things we would like to resurvey too that we didn't vote--

SPEAKER(?). We'll have different voting members next year.

CHAIRMAN GREENSPAN. The time is approaching on this. Would you read--

MR. BERNARD. It reads: "In the implementation of policy for the immediate future the Committee seeks to decrease slightly the existing degree of pressure on reserve positions. Taking account of progress toward price stability, the strength of the business expansion, the behavior of the monetary aggregates, and developments in foreign exchange and domestic financial markets, slightly greater reserve restraint or slightly lesser reserve restraint would be acceptable in the intermeeting period. The contemplated reserve conditions are expected to be consistent with growth of M2 and M3 over the period from November through March at annual rates of about--"

MR. KOHN. 8-1/2 and 5-1/2 percent.

MR. BERNARD. "--8-1/2 and 5-1/2 percent, respectively. The Chairman may call for Committee consultation if it appears to the Manager for Domestic Operations that reserve conditions during the period before the next meeting are likely to be associated with a federal funds rate persistently outside a range of--"

MR. KOHN. We could use 6 to 10 percent, which is more closely centered on 8-1/4 percent.

CHAIRMAN GREENSPAN. 6 to 10 percent.

MR. BERNARD. Mr. Chairman, Mr. Prell had an amendment to propose in what was distributed. It relates to housing.

MR. PRELL. It's just a correction of the language there. I would recommend that it read "Housing starts fell in November but for the October-November period were up somewhat on average from their third-quarter level." It captures--

CHAIRMAN GREENSPAN. Any objections? [Let's vote on the directive].

MR. BERNARD.

| | |
|------------------------|-----|
| Chairman Greenspan | Yes |
| Vice Chairman Corrigan | Yes |
| Governor Angell | No |
| President Guffey | Yes |
| Governor Johnson | Yes |
| President Keehn | Yes |
| Governor Kelley | Yes |
| Governor LaWare | Yes |
| President Melzer | No |
| Governor Seger | Yes |
| President Syron | Yes |

CHAIRMAN GREENSPAN. The next meeting is scheduled for February 6th and 7th. For those of you who can stay, we'll have lunch.

END OF MEETING